# Projector Toolset

Reference guide
For SLM

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# 1. BASIC CONCEPTS

## Overview

- Introduction
- About a Configuration
- About a Snapshot
- About storing Configurations and Snapshots

## 1.1    Introduction

### Overview

Projector Toolset is a software tool to set up, configure, manage and control Barco projectors.

The concept of this Projector Toolset software is modular. The basic package can be extended with several optional device plug-in modules, now and in the future available.

The Projector Toolset software works with configurations that can be loaded. Within a configuration, different snapshots can be taken. A snapshot represents a current state of a configuration and can be reloaded to return to this typical state. These terms will be used through the complete software.

Projector Toolset is a stand-alone application that runs on a Java Virtual Machine and that does not require extra services to run.

Several configurations can be controlled simultaneously. Even when the configurations are connected via different ways.

## 1.2    About a Configuration

### What is a Configuration?

A **Configuration** is a collection of projectors with all their current settings, connected to a computer. A configuration can contain different settings, called snapshots, for all the projectors in the configuration.

## 1.3    About a Snapshot

### What is a Snapshot?

A **Snapshot** is collection of settings of a configuration. Such a snapshot represents the current state of a configuration.

A snapshot can contain all settings or specific settings as input settings, lamp settings, layout settings or projector settings. When restoring a snapshot, only the stored settings will be restored. The others remain on their current value.

## 1.4    About storing Configurations and Snapshots

### Overview

All information is stored by default in the install directory of Projector Toolset in the subdirectory *Workspace*.

Configurations are directly under the subdirectory *Workspace* and have the extension *.config*. Snapshots are stored in a subdirectory of Workspace, called *Snapshots*. The files have the extension *.snapshot* .

This structure makes it possible to zip the workspace and send it the another computer for further use.

To make a backup of all your configurations and snapshots, just make a copy of *Workspace* with all its content.

# 2. INSTALLATION

### Overview

- General requirements
- Free download of Projector Toolset
- Projector Toolset installation
- Starting up
- Manual installation of a device plug-in
- Uninstall Projector Toolset
- About this manual

## 2.1    General requirements

### Before you begin

It assumes you are familiar with the Windows operating system at your site.

### System requirements for Microsoft Windows

Minimum hardware specifications :
- PC Pentium III or equivalent, 1 GHz
- 512 MB RAM
- Free hard disk space: 80 MB
- XGA resolution (1024 x 768)
- Serial communication port and/or Ethernet connection

Software
- Windows 2000, Windows XP Home or Windows XP Professional (recommended)

Recommended hardware specifications :
- PC Pentium IV or equivalent, 2.4 GHz
- 512 MB RAM
- 140 MB hard disk free space
- SXGA resolution (1280 x 1024) with 32 MB video memory
- Serial communication port
- Ethernet connection

### System requirements for Linux

Software
- Any Linux distribution that supports Sun's Java Runtime Environment v1.5.0 (RedHat 9.0, SuSe 8.2, Debian/Ubuntu, Mandriva, ...)
  Check out the documentation of your favorite distribution to find out if Java 1.5 is supported.

Minimum hardware specifications
- PC Pentium III or equivalent, 1 GHz
- 512 Mb RAM
- Free hard disk space: 100 MB
- XGA resolution (1024 x 768)
- Ethernet connection (serial connection is not supported)

Recommended hardware specifications :
- PC Pentium IV or equivalent, 2.4 GHz
- 512 MB RAM
- 140 MB hard disk free space
- SXGA resolution (1280 x 1024) with 32 Mb video memory
- Serial communication port
- Ethernet connection

### Mac OS X

Software
- Apple's Java SE 5.0 Release 3 or better
- Mac OS X v10.4.2 or better

Minimum system requirements :
- PowerPC G3
- 256 MB RAM
- 10 MB disk space
- Display with XGA resolution (1024x768)
- Network connection

Recommended system requirements
- PowerPC G5 or Intel Core 2 Duo
- Display with SXGA resolution (1280x1024)
- 512 MB RAM
- 50 MB hard disk free space
- Network connection

## 2.2   Free download of Projector Toolset

### Overview

The program and all necessary plug-ins can be downloaded for free from Barco's Partnerzone, (URL: https://my.barco.com). Registration is necessary.

If you are not yet registered, click on *Sign up My.barco* and follow the instructions. With the created login and password, it is possible to enter the partnerzone where you can download the Projector Toolset software and the device plug-in updates.

When downloading the complete Projector Toolset, this software contains already the latest device plug-ins.

It is not necessary to install any other software. A Java virtual machine is included with this download.

## 2.3   Projector Toolset installation

**The installation file contains the Projector Toolset framework and the available plug-ins.**

## To install on Microsoft Windows

The process of installing your software involves the following steps:

1. Browse to the directory where the install program is downloaded.

2. Double click on *Ptoolset_Installer.exe* .

   The installation starts. Depending on the local Internet Explorer settings, it is possible that a warning is displayed.  Just click Run to start the installation.

3. Follow the instructions given in the different install windows.

4. Complete installation is automatic.
   ***Note:*** *A restart of the computer is necessary before the software can be used.*

   Barco → Projector Toolset → Projector Toolset item is added to the program list (unless otherwise selected during the installation).

---

**Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.**

---

## To install on MAC OS X

The process of installing your software involves the following steps:

1. Browse to the folder where the downloaded installer zip file is stored.

2. Double click on the zip file to unzip.

3. Double-click on the *PToolset_Installer* file.

   The installation starts.

4. Follow the instructions given in the different install windows.

5. The complete installation is done automatically.

---

**Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.**

---

## To install on Linux

The process of installing your software involves the following steps:

1. Browse to the folder where the downloaded installer file (*PToolset_installer.bin*) has been stored.

2. Check if the file is executable. This is done by right clicking on the file and selecting 'Properties' from the popup menu.

3. Select tab **Permissions** and check if *Is executable* is enabled.  (image 2-1)

4. Double click on the *Ptoolset_installer.bin* to start the installation.

5. Follow the instructions given in the different install windows.

6. The complete installation is done automatically.
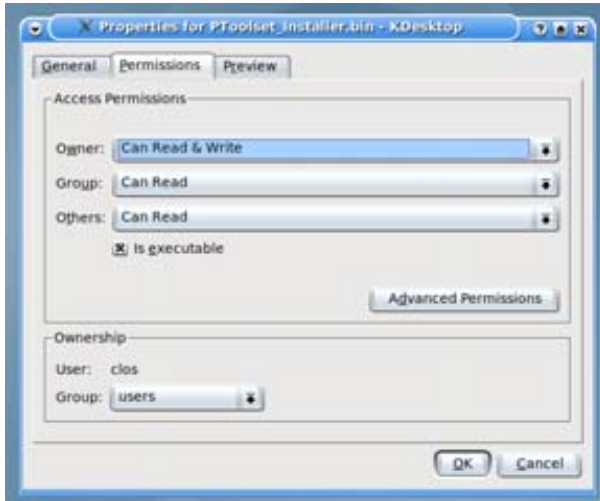
Image 2-1
File properties

> **Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.**

## 2.4 Starting up

**Launching Projector Toolset on Microsoft Windows**

To start up the Projector Toolset software:

1. Click on **Start** → *Programs* and select *Barco* → *Projector Toolset* → *Projector Toolset*.
   Or,
   if a desk top icon is available, double click that desk top icon.

   The software starts up. This start up procedure can take a while. First splash screen opens. (image 2-2)

   The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default. (image 2-3)

2. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   **Select all** will check all plug-ins at once.

3. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed. (image 2-4)

4. Click **Yes** to shutdown the application and restart the application.
   Click **No** to continue working with the old plug-ins.

Image 2-2
Start up splash screen
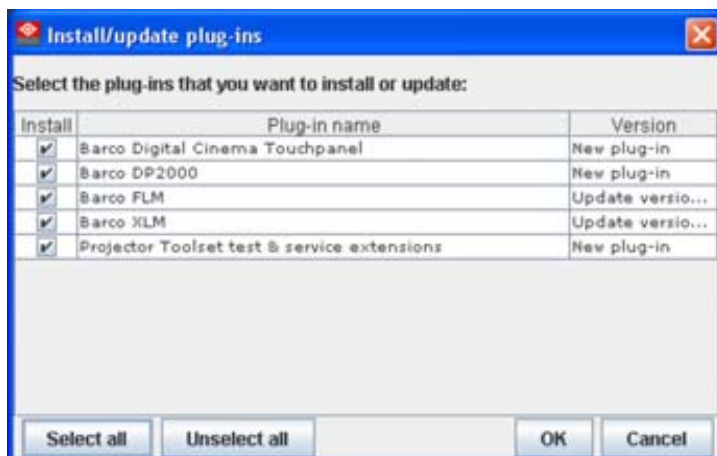


Image 2-3
Overview downloaded plug-ins
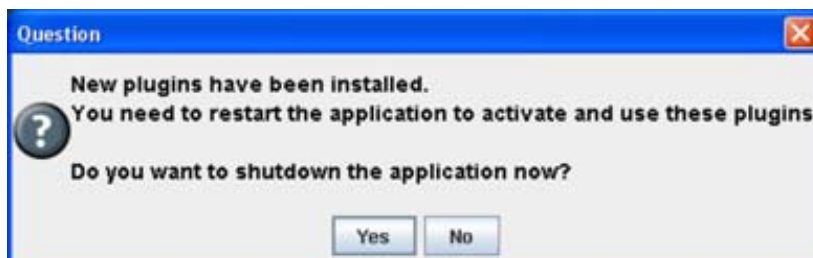


Image 2-4
Plug-ins installed

## Launching Projector Toolset on Mac OS X

To start the Projector Toolset software on Mac OS X system:

1. With Finder, go to the Applications folder under your home folder.

2. Double-click on the Projector_Toolset icon to start the application.

   It can take a while to start up. First splash screen opens.

   The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default. (image 2-3)

3. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   **Select all** will check all plug-ins at once.

4. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed. (image 2-4)

5. Click **Yes** to shutdown the application and restart the application.
   Click **No** to continue working with the old plug-ins.

6. Once Projector Toolset is fully started, it has the following look and feel. (image 2-5)
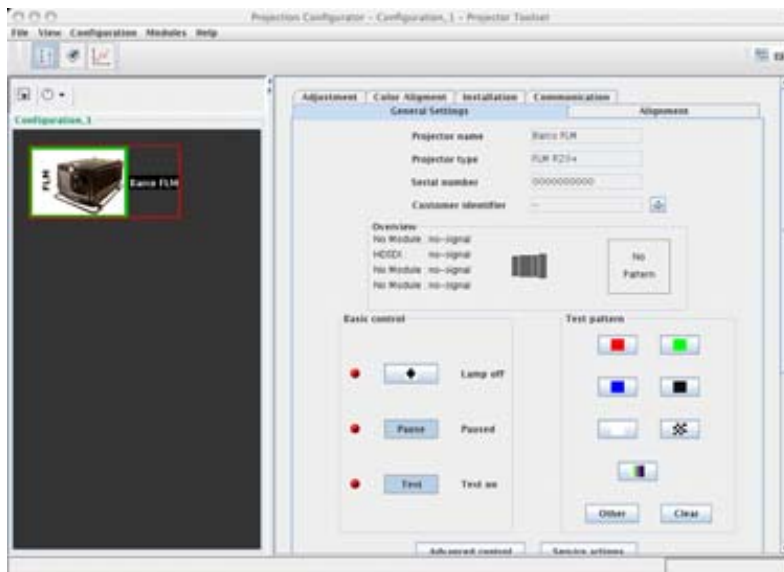


Image 2-5
Look and feel on MAC

## Launching Projector Toolset on Linux

To start the Projector Toolset software on a Linux system:

1. Go to your home folder.

2. Double click on the Projector_Toolset icon to start the application.

   It can take a while to start up. First splash screen opens.

   The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default. (image 2-3)

3. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   **Select all** will check all plug-ins at once.

4. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed. (image 2-4)

5. Click **Yes** to restart the application.
   Click **No** to continue working with the old plug-ins.

6. Once Projector Toolset is fully started, it has the following look and feel. (image 2-6)
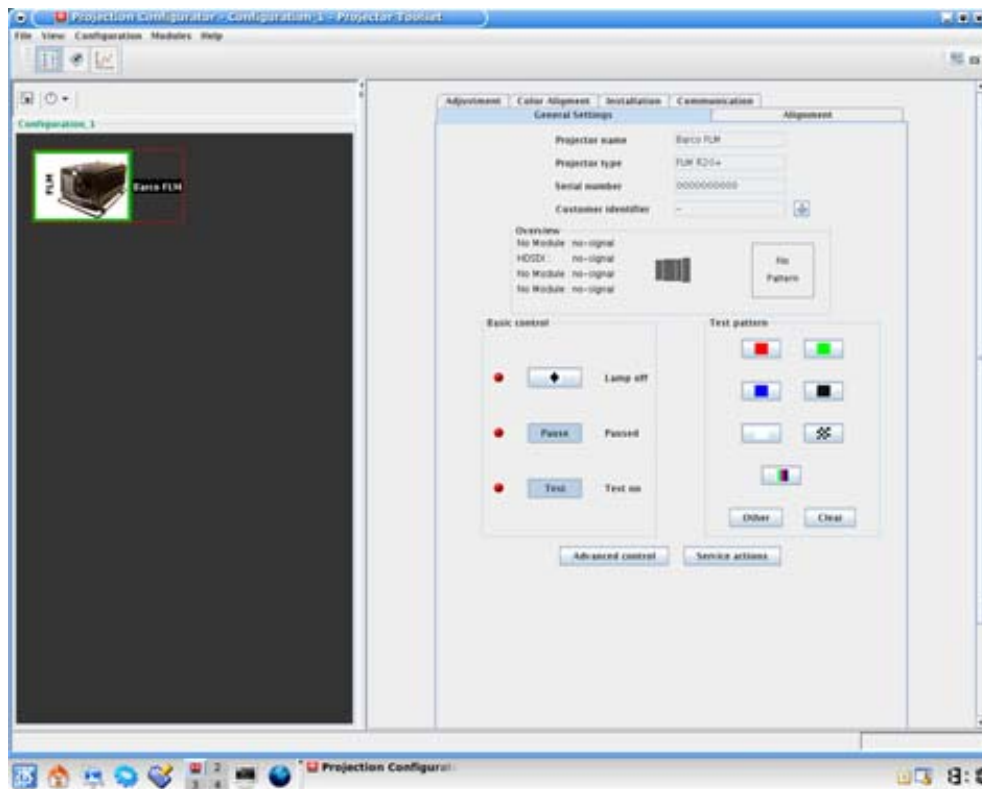


Image 2-6
Look and feel on Linux

## 2.5 Manual installation of a device plug-in

### When should it be done manually

When a new plug-in is downloaded, and the user has decided no to install it yet for some reason. He still has the possibility to install this plug-in manually.

### How to install

1. Start up Projector Toolset.

2. Click **Help** on the menu and select *Install plugin...* . (image 2-7)

   An *Install device plug-in* dialog box opens.

3. If the path and file name is known, fill it out next to *Select a tpi file*.
   Or,
   click on the Browse button (**...**).

   An *Open* dialog box opens.

4. Browse to the desired plug-in file and click **Open**.

Plug-in files are .tpi files and are mostly located in the Plugins subdirectory of Projector Toolset's install directory.

The *Install device plug-in* dialog is re-displayed with the complete path filled out.

5. Click **Next**.

An overview of projector name, plug-in ID and version is given.

A question dialog box appears to ask if you really want to install the selected plug-in.

6. Click **Next** to continue.

Installation procedure starts. Result is displayed in a dialog box. A restart of Projector Toolset is necessary to activate the new installed plug-in.

7. Check *Shutdown application* and click **Finish**. (image 2-8)

Projector Toolset will be closed.

8. Restart Projector Toolset.

The new plug-in is activated.
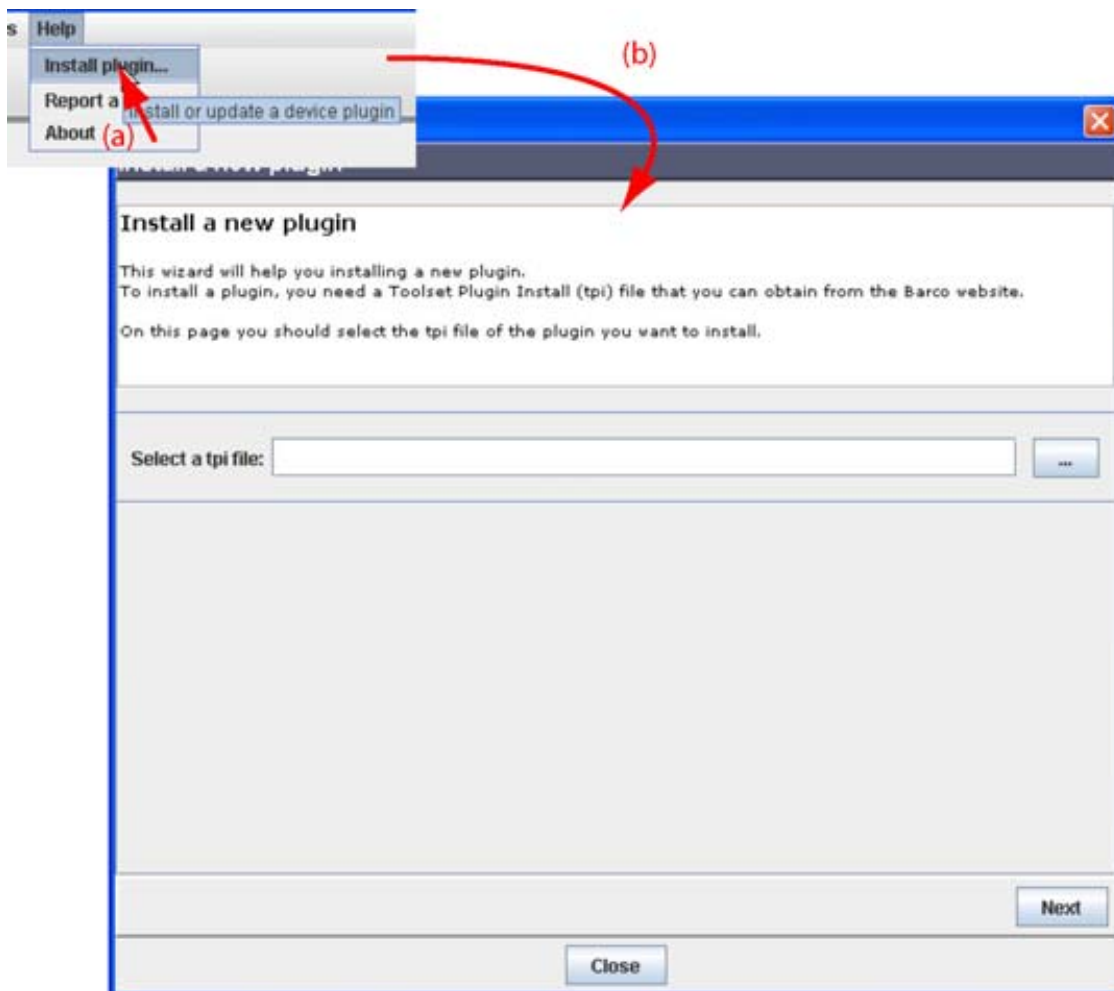


Image 2-7
Install plug-ins, start
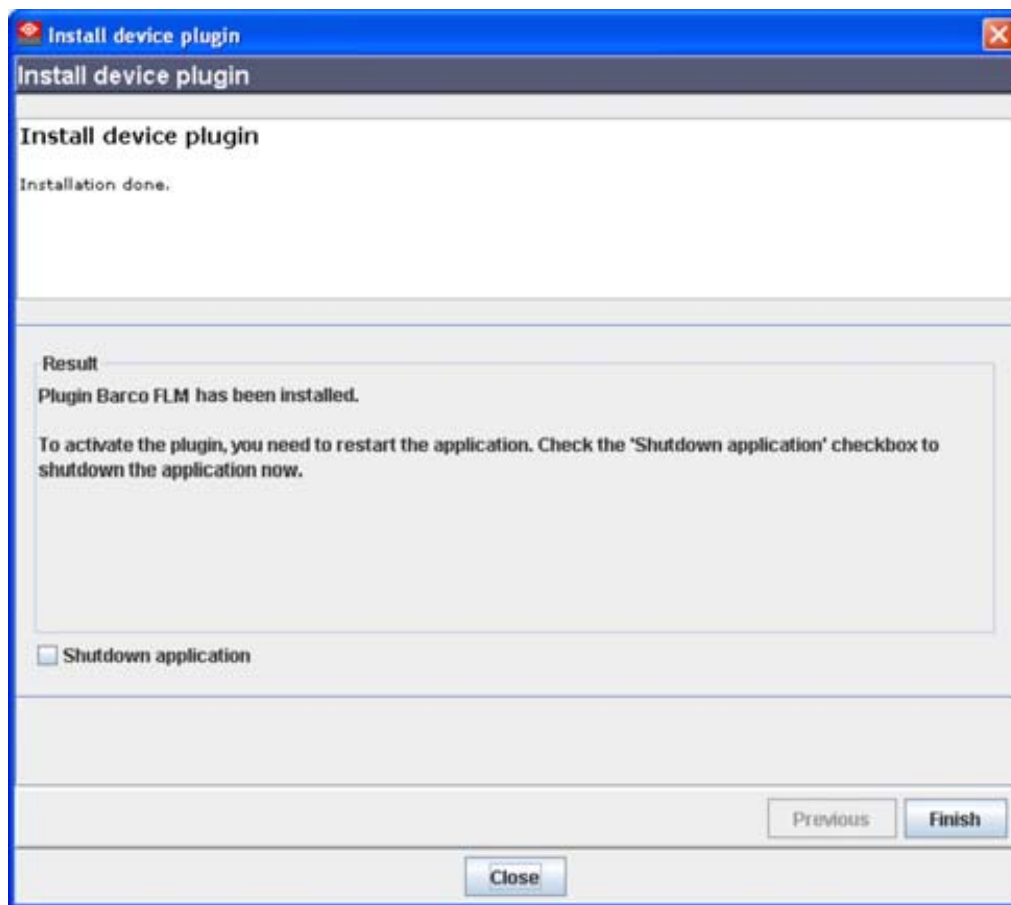
Image 2-8
Finish the installation

## 2.6 Uninstall Projector Toolset

### How to uninstall on a Microsoft Windows platform

To uninstall the program, normal Windows functionality can be used to remove a software.

Click on Windows **Start**, select *Settings* and open *Add/Remove software*.

Select the version of Projector Toolset which must be removed and click on **Remove**.

The complete program will be removed from the hard disk.

### How to uninstall on a Linux platform

Remove the Projector Toolset folder from the home folder.

### How to uninstall on a Mac OS X platform

Remove the Projector Toolset folder from the application folder in the home folder.

## 2.7 About this manual

### Overview

This Reference manual provides detailed information about the configuration and setup software Projector Toolset. This manual is designed to be a reference tool in your everyday work with Projector Toolset.

The following icons are used in the manual :

| | |
|---|---|
| ⚠ | Caution |
| ⚡ | Warning |
| ⓘ | Info, term definition. General info about the term. |
| 🗎 | Note, gives extra information about the described subject. |
| ☞ | Tip, gives extra advice about the described subject. |

Images given in the manual are used as illustration. The content of the image can be slightly different with the real image on the screen, e.g. version numbers, installed modules, etc. .

Typography:

- Clickable menu items or buttons are indicated in bold, e.g. **OK**
- Menu items are indicated in italic.
- A dialog window is indicated in italic, e.g. *Make a new configuration*.
- Step related notes, tips, warnings or cautions are printed in italic.
- Procedure related notes, tips, warnings or cautions are printed in bold between 2 lines preceding by the corresponding icon.

## What's next?

Now that you are familiar with the style of this guide, you are now ready to know more about its modules and what they can do.

# 3. MENUS

### Overview

- General
- Menu and button bar
- Main window
- Short cut keys
- Workspace Explorer
- How to adjust a setting
- About Projector Toolset
- Snapshot management

## 3.1 General

### The right mouse button

The right mouse button is used in Projector Toolset for direct controls. The use of this button can be handy throughout the complete software.

### Ergonomics

Projector Toolset works on the principle of windows with adjustable sizes that can be positioned as you like.

When Projector Toolset opens, it displays the main window along with the Menu and button bar. The drop-down menus include the usual functions of any software (File,etc.) and menus specific for Projector Toolset.

The button bar allows switching between the different modules.

An extra *Workspace explorer* window makes configuration management more easy.

## 3.2 Menu and button bar

### Structure

The menu contains drop down menus accessible by clicking with the mouse on an item. To select an item, just click on an item in the drop down list.

The button bar contains on the left side navigation buttons to the different modules and on the right side manage buttons to the workspace explorer and snapshot function.

To activate a module, click on a navigation button. The window will change accordingly. When activating some buttons, some extra items will be added to the menu.
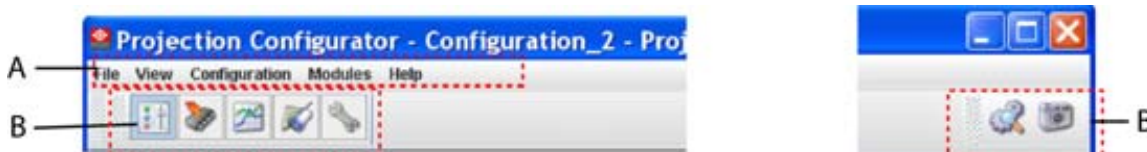


Image 3-1
Menu and button bar

## 3.3    Main window

### Overview

The content of the main window changes when a other navigation (module) button is activated, but the main parts are the same for all modules.
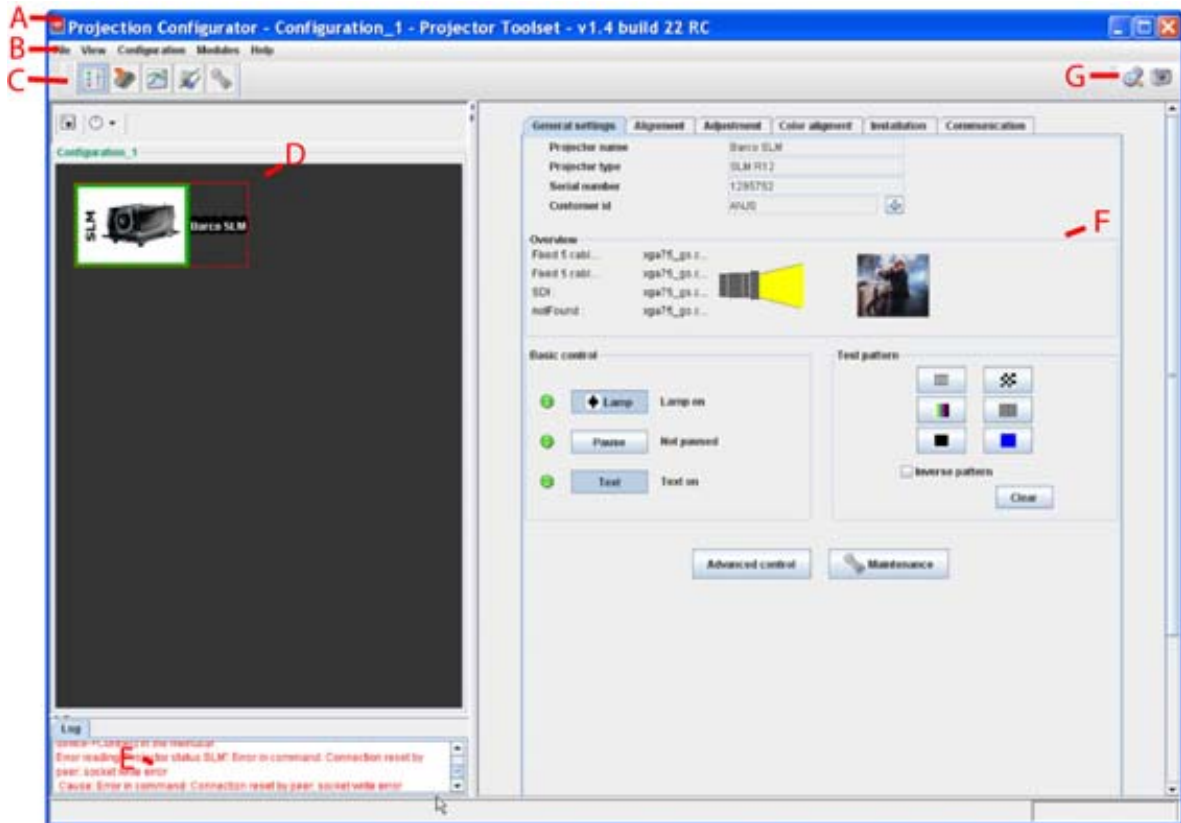


Image 3-2
Main window indications

| Indica-tion | Description |
|---|---|
| A | Window title. Construction of active module - Configuration name |
| B | Menu |
| C | Module navigation buttons |
| D | Configuration preview pane |
| E | Log window. Can be hidden by the log information button on top of the configuration preview pane. |
| F | Settings pane. Content changes with the selected module button and selected projector/device. |
| G | Manage buttons for configurations and snapshots |

### Tool tip

Some items and or icons show a tool tip when moving the cursor over that item or icon. This tool tip helps to identify the buttons or items.

### Scroll bars

If there is more information available than displayed in a pane, vertical and horizontal scroll bars will be added to that specific pane. These scroll bars let you move up and down and left and right through the

information in the pane. Vertical scroll bars are the bars on the right side of the pane. Horizontal scroll bars are the bars at the bottom of the pane.

To use scroll bars, place the cursor on the scroll box, click and hold down the mouse button. Move the scroll box the entire span of the scroll bar. Notice how you can move and up down in the information in the pane.

You can also click anywhere above or below (left or right) the scroll box in the empty space. Click once with the mouse and the scroll bar will make larger leaps in the information.

### Split bar

The split bar divides the different panes. The position of the split bar is adjustable.


Image 3-3
Split bar

To adjust the position, place the cursor over the split bar separating the panes, so that the two-headed arrow cursor appears. Click on the two-headed arrow and drag it until the panes are the desired size.

## 3.4    Short cut keys

### Overview

| Window operating system | Description |
| --- | --- |
| F8 | Take snapshot |
| Ctrl + F8 | Apply snapshot |
| Shift + Ctrl + F8 | Show snapshot management dialog box |
| F11 | Show Workspace Explorer |
| Alt + Enter | Show configuration properties |
| Ctrl + Enter | Show properties of selected projector |
| Ctrl + S | Save configuration |
| Shift + Ctrl + S | Save all configurations |

## 3.5    Workspace Explorer

**Workspace explorer**

Window to manage the available configurations in the current workspace.

### How to display

Click on the workspace explorer icon (🖳) on the left top corner or

on the menu, click on **View** → *Workspace explorer* or

press **F11**.
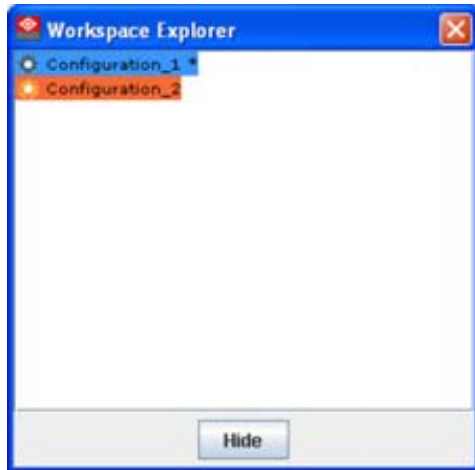
Image 3-4
Workspace explorer

## What can be done

The workspace explorer window gives an overview of the existing Configurations.

To select a configuration, just click on it. The background of the selected configuration changes to blue. When the same item is open (active) the background remains blue.

When another configuration is selected, the background of this new configuration becomes blue and the background of the active (open) configuration changes to orange.

To activate (open) another configuration, double click on it. The background becomes blue. All other configurations will have no background.

An asterisk (*) behind a configuration means that a configuration setting is changed since the last saved version. A save is necessary to store the changes.

# 3.6 How to adjust a setting

## About input boxes

To change a value:
- Click on the up down control of the spin box next to the input box until the desired value is reached.
- Click in the input field of the spin box, select the actual value and enter a new value with your keyboard.

## About drop down menu settings

Click on the drop down menu. A list of possible choices opens. Select the desired item.

# 3.7 About Projector Toolset

## Why?

The about function in the *Help* menu gives an overview of the used system parameters and the installed modules. This information can be handy when calling for help.

The images given below are just example images. These images can differ from version to version.

> ![note icon] **The versions indicated on the illustrations are only given as info and these versions can be different with the current versions.**

## How to start up

Click **Help** on the menu and select *About* (a). (image 3-5)

The *About* start up dialog box opens (b).



Image 3-5
About window

## System details

Click on **System details** to see the system parameters on which Projector Toolset is running.
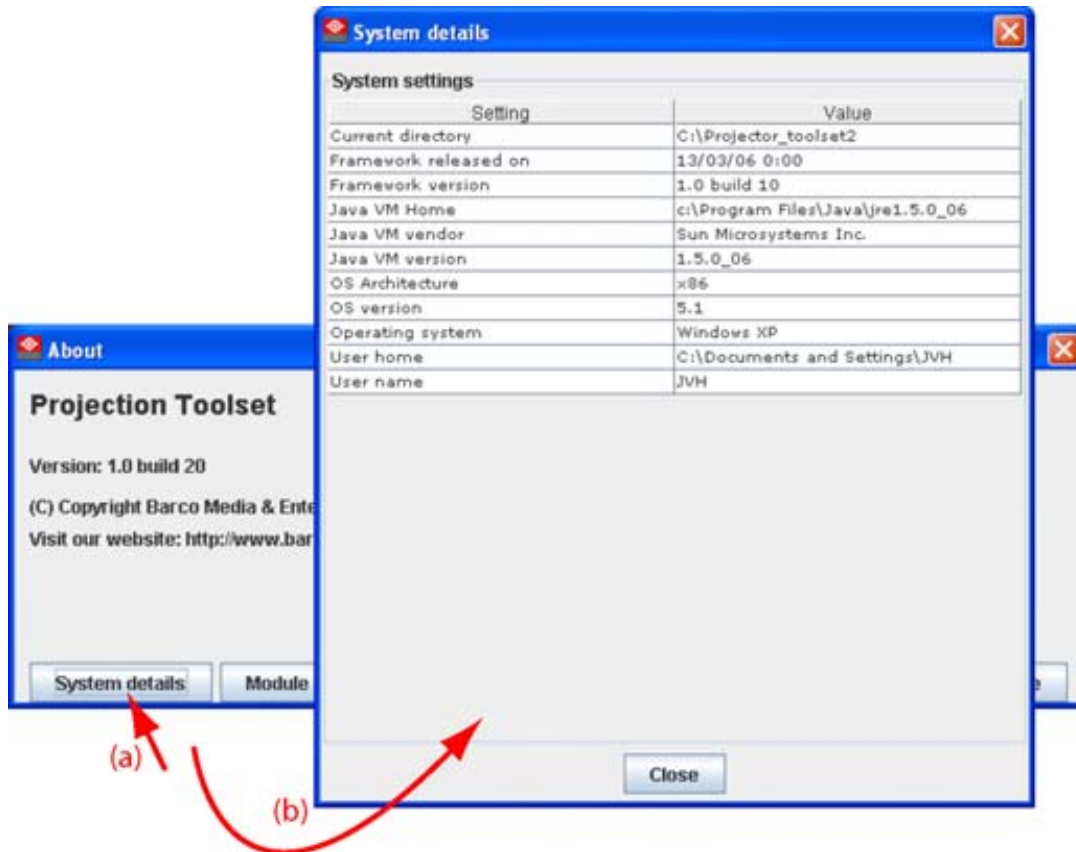
Image 3-6
System details

## Module details

Click on **Module details** to get an overview of the installed modules.
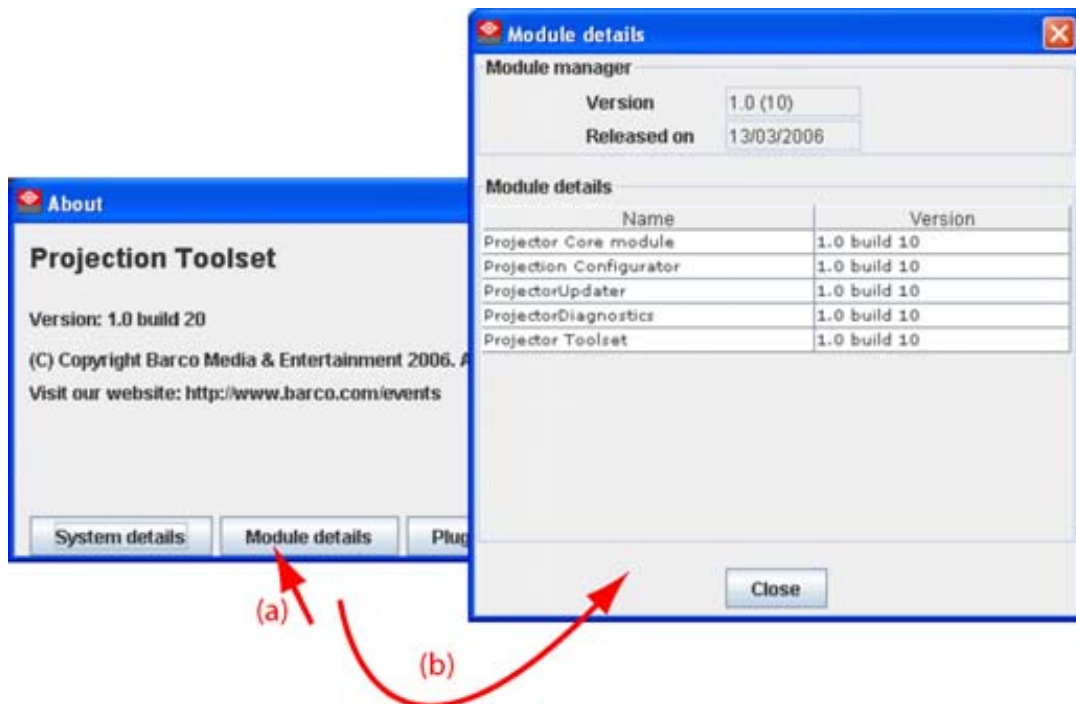


Image 3-7
Module details

First of all the software version and the release date are indicated in Module manager.

*Module details* gives an overview of the installed modules and their version.

## Plug-in details

Plug-in details gives an overview of the installed device plug-in together with their version.
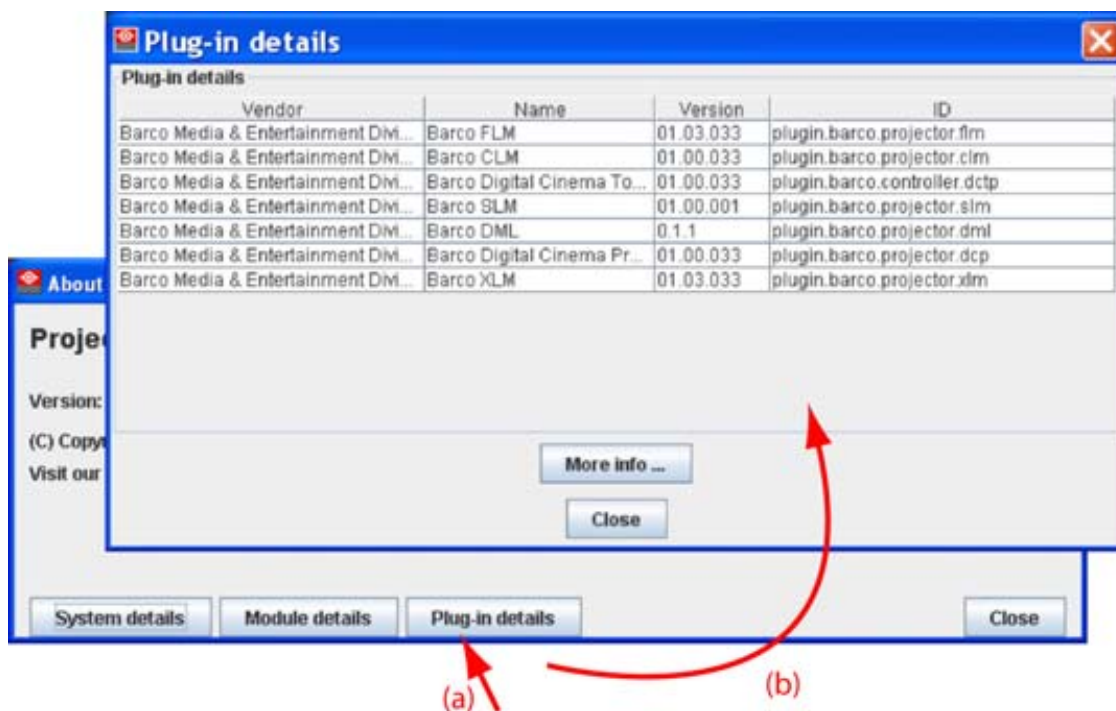


Image 3-8
Device plug-ins details

For more info about a device plug-in, click on the desired plug-in to select and then click on **More info...** .
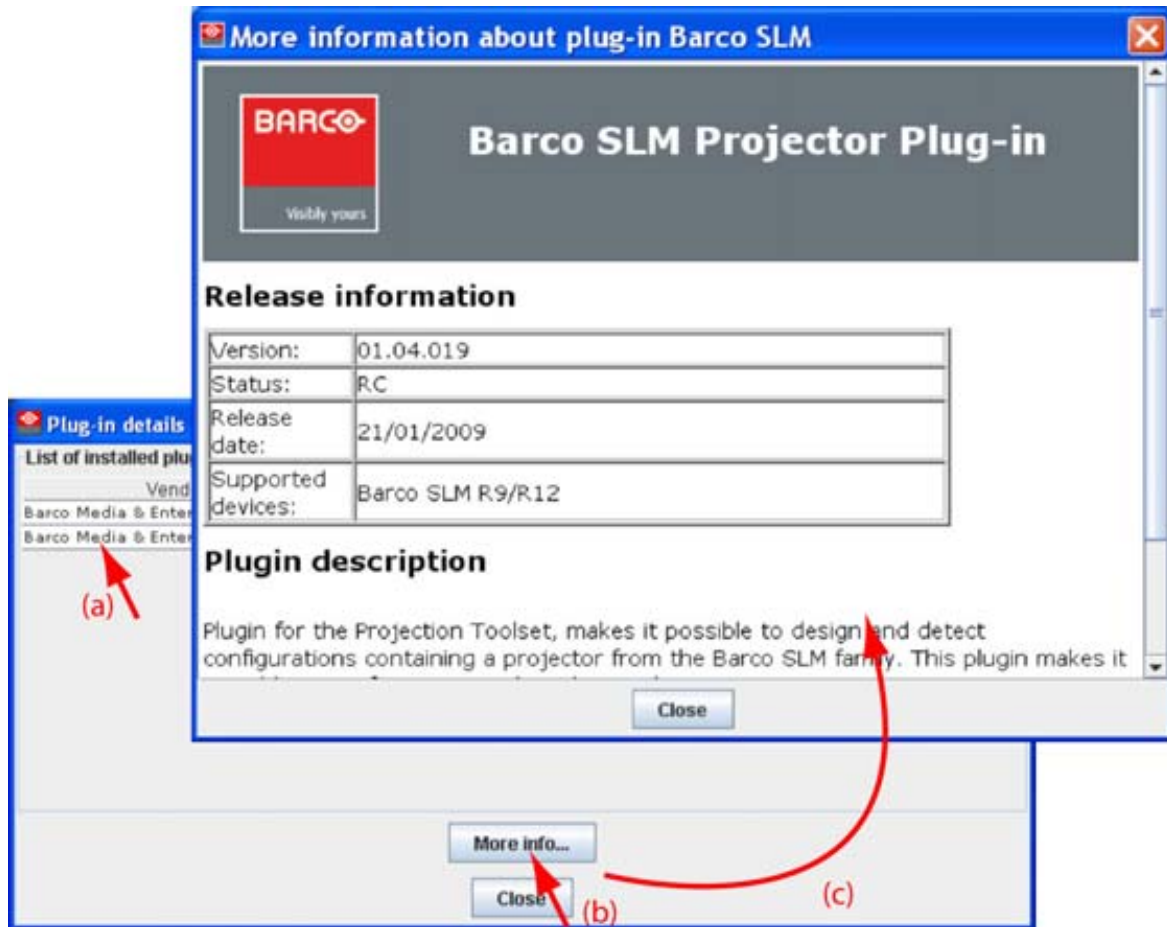
Image 3-9
More info device plug-in

Release information, plug-in description and license agreement is given.

## 3.8 Snapshot management

- About snapshots
- Managing snapshots
- Take a snapshot
- Apply a snapshot
- Delete a snapshot
- Add shot cut key to a snapshot
- Remove shot cut key association

> **When a configuration contains also Digital Cinema Touch panel devices or only these devices, these devices are not included in a snapshot.**

### 3.8.1 About snapshots

#### Overview

At any moment the settings for a configuration can be saved in a snapshot file. This snapshot file can be loaded again to create the same situation as when the snapshot was taken.

A snapshot can contain:

- All settings
- All layout settings
- All input settings
- Lamp settings
- Projector settings

> **Snapshot**
>
> A snapshot is a collection of settings at a given point of time for a configuration

## 3.8.2 Managing snapshots

### Overview

When opening the snapshot window an overview of all available snapshots is given. A snapshot file is built up as a tree of settings.

To open this tree of settings, click on the '+' sign to expand a branch.

A yellow warning symbol in front of the snapshot name means that something inside the snapshot does not correspond with the current active configuration. Expand the snapshot tree to see the differences. Such a snapshot can be applied to the current configuration but only the corresponding setting are loaded and for the other settings, the current values remain in place.

Some examples when a warning symbol can be displayed:

- projector not (anymore) in the configuration
- inputs on projector are swapped, or missing.

When a snapshot is selected, the name of the snapshot is yellow.
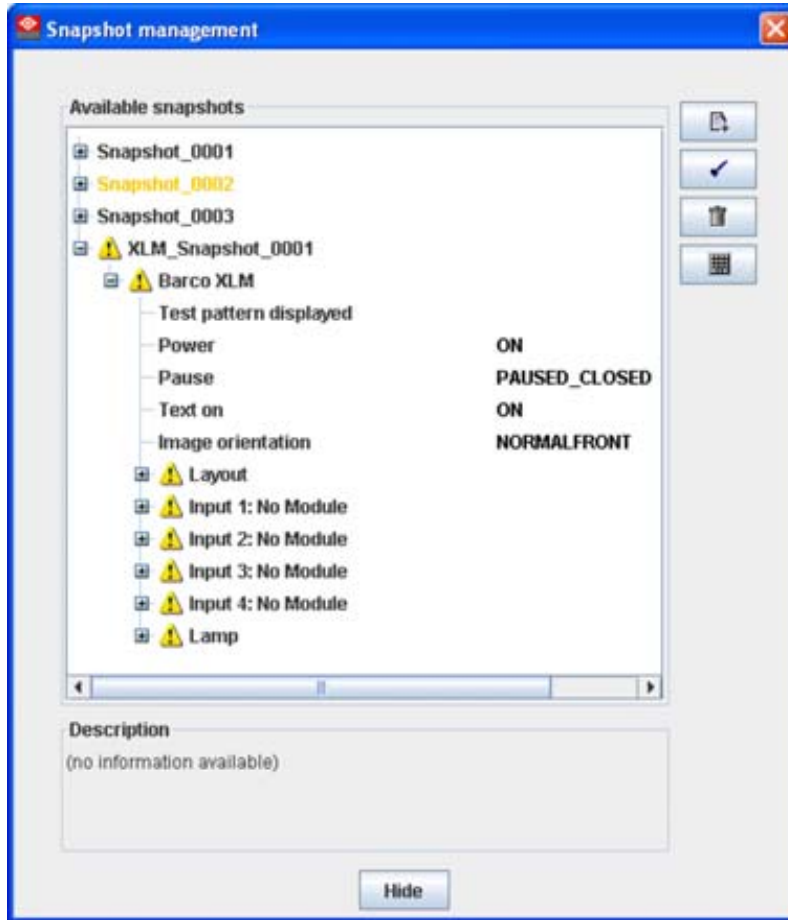
Image 3-10
Snapshot view

### 3.8.3 Take a snapshot

#### What can be done?

As a snapshot is collection of setting at a certain point in time, a snapshot of the current configuration can be taken at any moment.

#### How to take

Click on the snapshot icon on the manage button bar (a). (image 3-11)

> The *Snapshot management* dialog box opens (b).

Click the *Take a snapshot* icon (c).

> The *Take a snapshot* dialog box opens (d).

To change the proposed snapshot name, click in the input field next to *Snapshot name*, select the current name and enter a new name (e).
*Note: Only the characters a to z, A to Z, 1 to 9 and (, ), _, -, @ or allowed in a name.*

To enter a description for the snapshot, click in the description input field and enter a description (f).

To select the snapshot level, click on the drop down box next to *Snapshot level* and select the desired level from the list (g).

The following levels are available:

- All settings
- All layout settings: only layout settings are saved
- All input settings: only input settings are saved
- Lamp settings: only lamp settings are saved
- Projector settings: only projector settings are saved

This is a first filtering level and can be followed by a device selection.

Select the device. By default all devices are selected (h).

Within the setup snapshot level it is possible to exclude some devices by un-checking that device in *Select the device*.

E.g. when selecting as snapshot level *lamp settings*, it is possible to exclude the lamp settings of a certain projector or when selecting *input settings*, it is still possible to exclude some inputs.

Click **OK** to take the snapshot (i).

The snapshot is taken. A message is displayed with the result.

Click **OK** to finish the snapshot procedure.
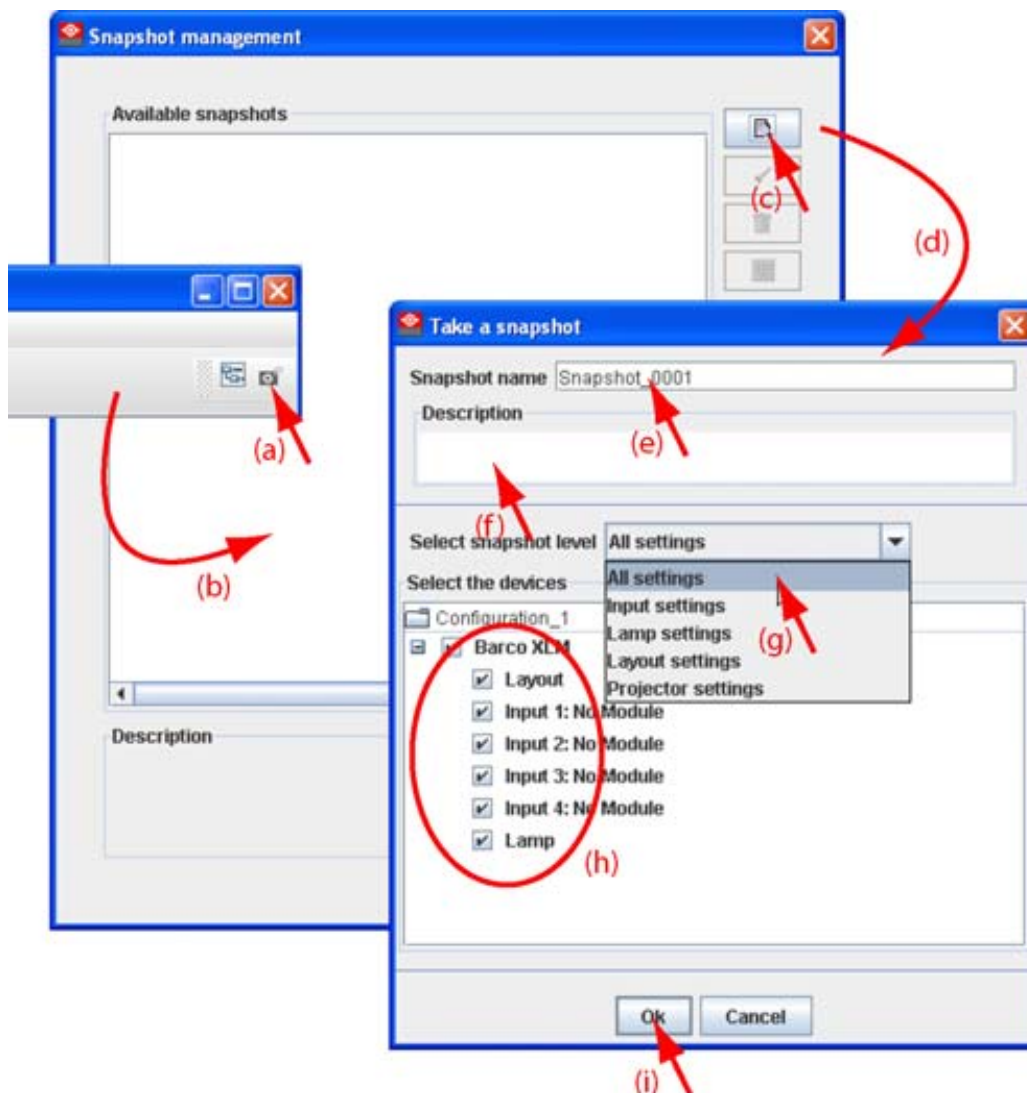


Image 3-11
Take snapshot

### 3.8.4 Apply a snapshot

#### What can be done?

A snapshot can be fully or partially apply to the current configuration.

When there is no warning symbol in front of the snapshot name, this snapshot can be fully applied to the current configuration.

When there is a warning symbol in front of the snapshot name, that means that the current configuration is not the same as those when the snapshot was made, than only the matching parts will be applied to the current configuration. To see which items do not match, expand the snapshot. Each not matching item will have a warning symbol.

#### How to apply

Click on the snapshot icon on the manage button bar (a). (image 3-12)

The *Snapshot management* dialog box opens with all available snapshots (b).

Click on the desired snapshot (c).

The name becomes yellow.

Click on the Apply icon (d).

A Load and apply question dialog box opens (e).

Click **Yes** to apply (f).

When it was a fully match, all items in the snapshot are applied. In all other cases a not matching dialog box opens that indicate all not matching items (g).

Click **Yes** if you want to continue apply the matching items (h).

Image 3-12
Apply snapshot

## 3.8.5 Delete a snapshot

### How to delete

Click on the snapshot icon on the manage button bar (a). (image 3-13)

    The *Snapshot management* dialog box opens with all available snapshots (b).

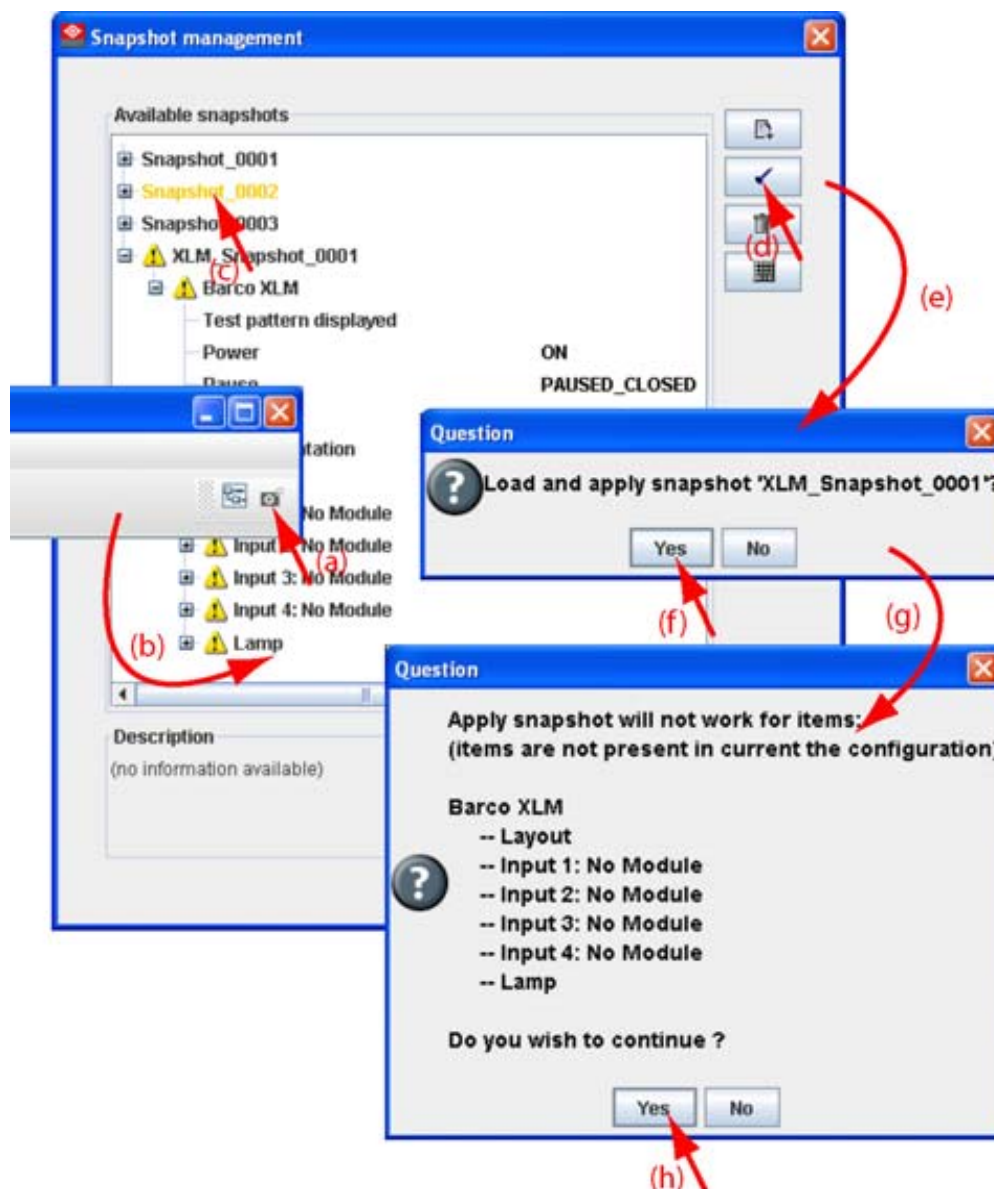Click on the snapshot to delete (c).

    The name becomes yellow.

Click on the delete icon (d).

    A confirmation dialog box is displayed (e).

Click **Yes** to delete (f).
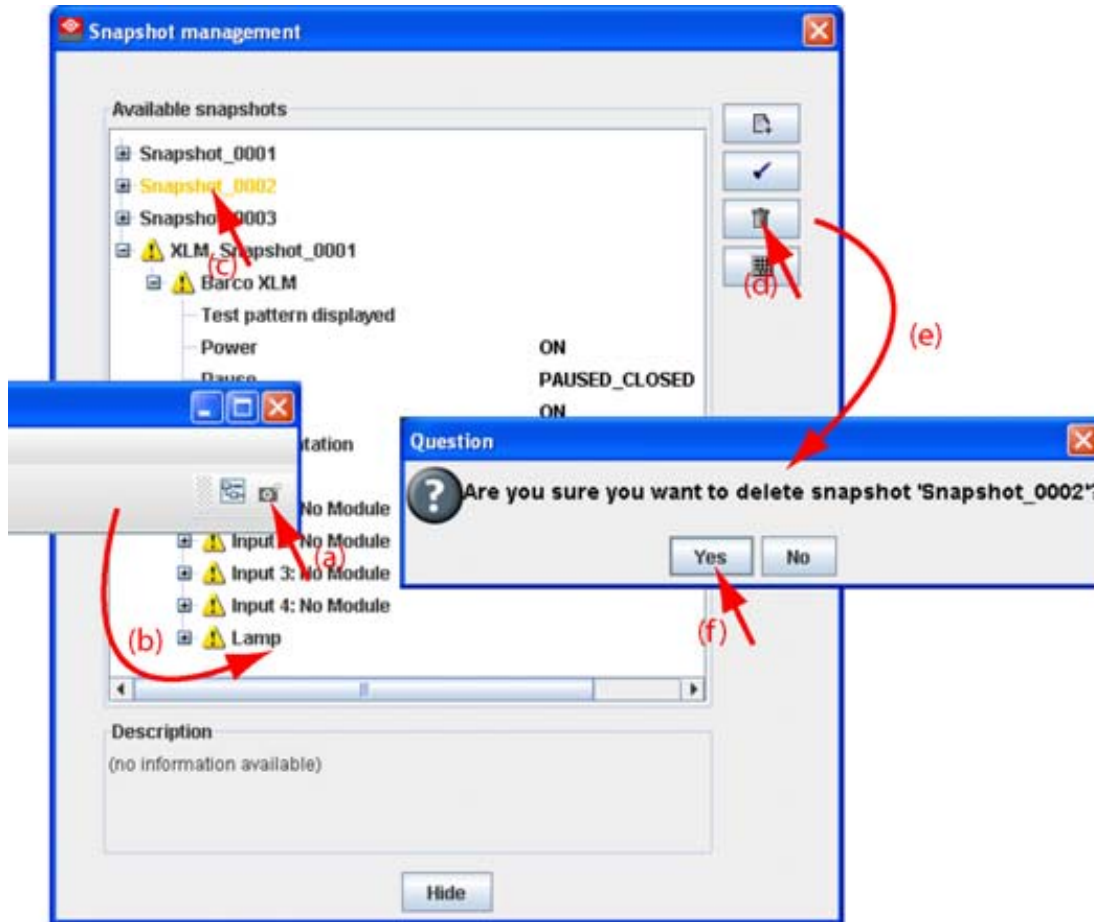
Image 3-13
Delete snapshot

### 3.8.6 Add shot cut key to a snapshot

#### What can be done?

To each snapshot a key stroke can be associated so that it can be used as short cut key. This short cut key can be activated at any time. Depending on the apply settings, the snapshot will be loaded without any notice or will be loaded after asking for confirmation. Once the snapshot is loaded, the statuses will be refreshed.

#### How to create a short cut key

Click on the snapshot icon on the manage button bar (a) (image 3-14)

   The *Snapshot management* dialog box opens with all available snapshots (b).

Click on the key bindings icon (c).

   The *Snapshot trigger keybinding* dialog box opens (d).

Select the snapshot to add a keybinding (e).

Enter a keystroke (f).

   No combination of keys is possible. Only single key can be used.

Select the snapshot trigger by clicking on the radio button (g).
   - *Don't apply*: not happens when activating the key.
   - *Apply after confirmation*: once the key is pressed, a confirmation message is displayed.
   - *Apply immediately*: once the key is pressed, the snapshot is applied without displaying any message.

Click **OK** to save the new short cut status (h).
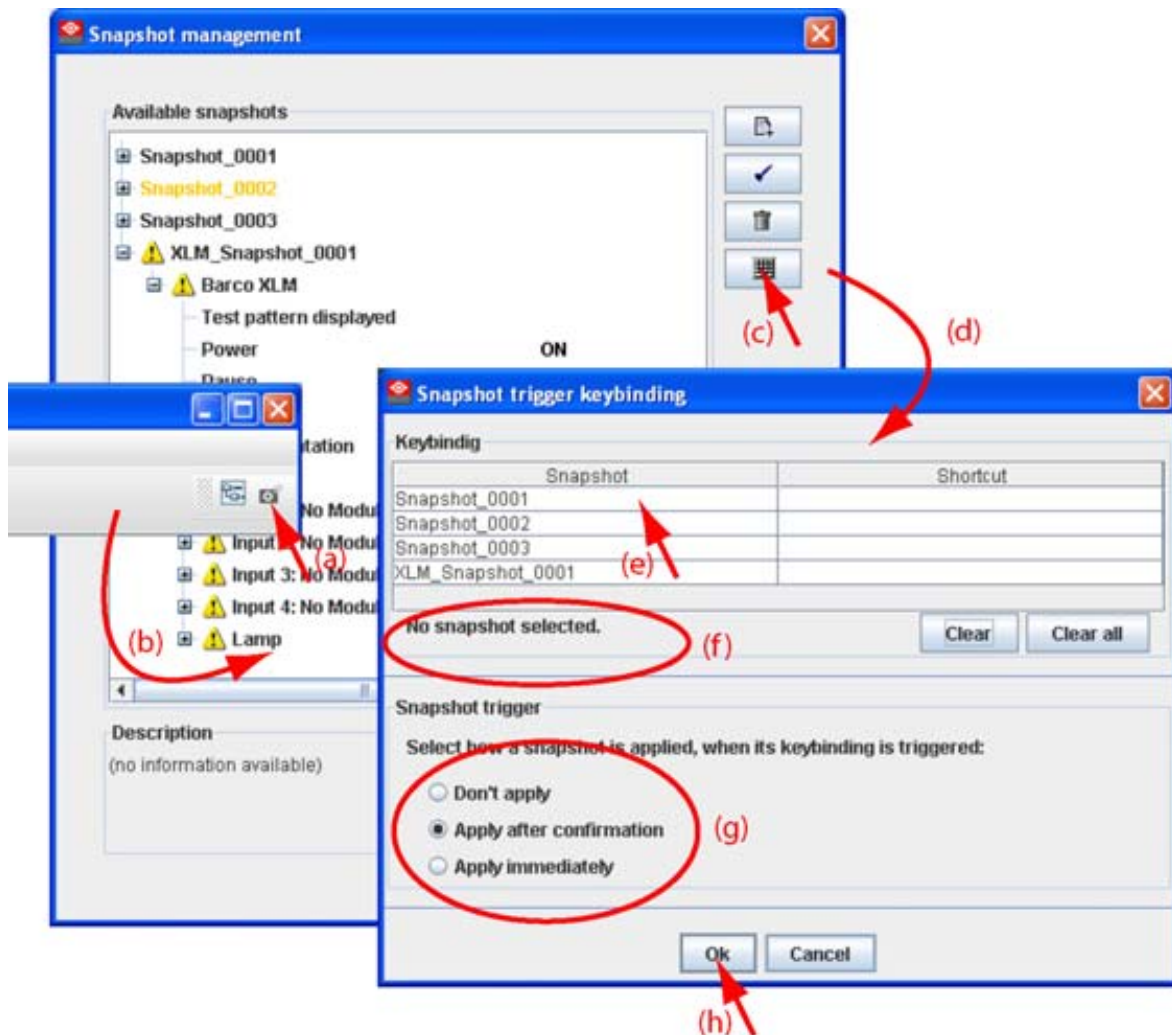


Image 3-14
Associate short cut to snapshot

### 3.8.7 Remove shot cut key association

#### How to remove a short cut

Click on the snapshot icon on the manage button bar (a) (image 3-15)

The *Snapshot management* dialog box opens with all available snapshots (b).

Click on the key bindings icon (c).

The *Snapshot trigger keybinding* dialog box opens (d).

To clear the key for a specific snapshot, select that snapshot (e) and click **Clear** (f1).
To clear all short cut keys at once, click on **Clear all** (f2).

Click **OK** to save the new short cut status (g).
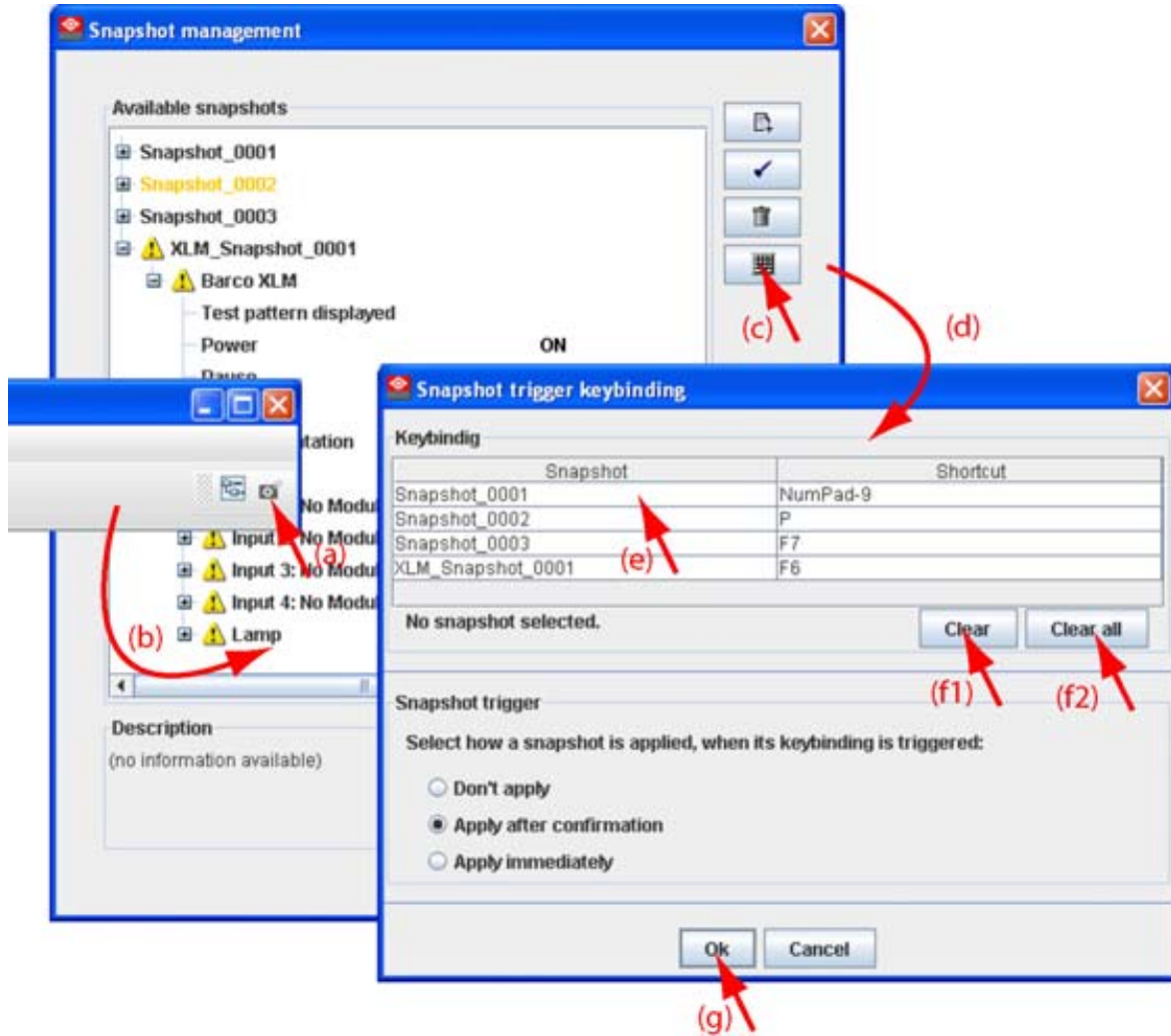
Image 3-15
Clear short cut on snapshot

# 4. PREFERENCES

- Introduction
- Start up the preferences
- Access level
- Software Appearance
- Bug report setup
- Logging
- Workspace selection

## 4.1 Introduction

### Overview

Preferences determine the default behavior of the software. Some preferences can be generally set for the complete software, some others are only for the different plug-in modules.

## 4.2 Start up the preferences

### How to start up ?

Click on *File* on the menu bar. (image 4-1)

>   The file menu opens.

Select *Preferences...* .

>   The *Preference* dialog box opens. (image 4-2)

Use the **Show all** button to display all the preference items. This **Show all** buttons is available in all following sub preference windows.

Use **Apply** button to apply a preference change in one of the other module.
Use **Cancel** to ignore the preference changes.
Use **OK** to apply the preference changes and to close the window at the same time.
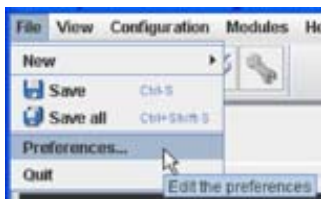


Image 4-1
Select Preferences
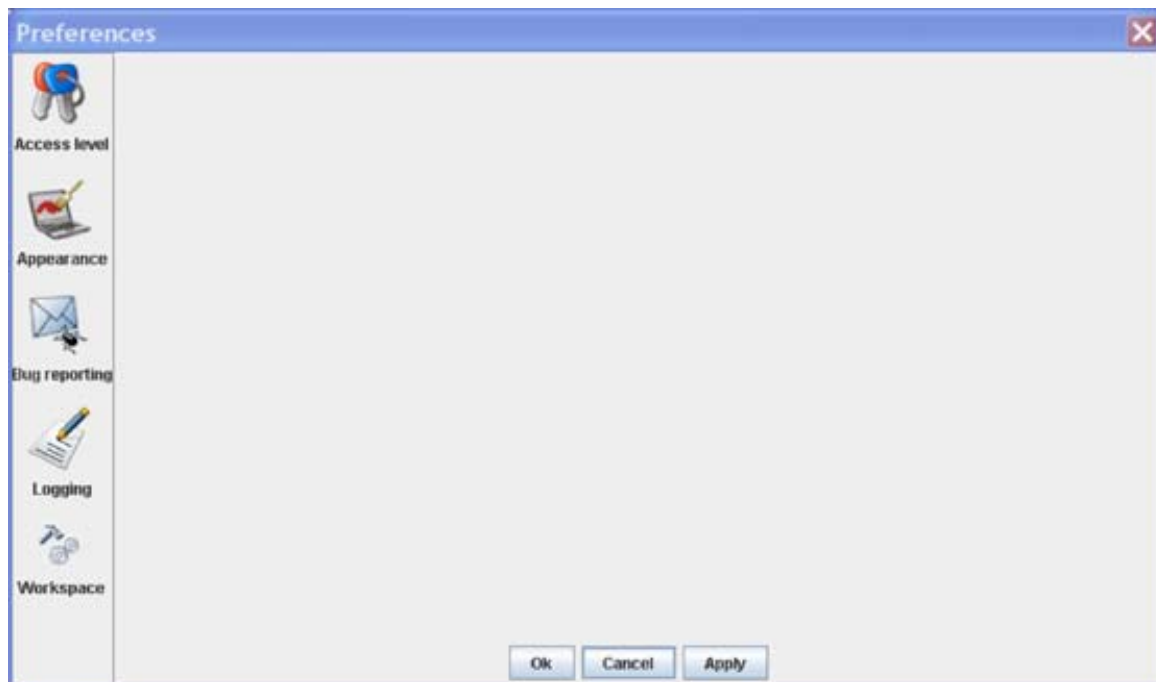
Image 4-2
Preference window

## 4.3   Access level

**What can be done ?**

Some actions and functions of the Projector Toolset are restricted to certain access levels. In this panel you can check the access level and read information from a dongle, if you have one.

A dongle is not required to use the normal functions in Projector Toolset.

When using Projector Toolset without dongle, or as operator, the maintenance function in the Service module has the same content as the maintenance button in the Configurator module, General tab.

Image 4-3
Access levels

To read out the dongle settings, click on **Read dongle**. The current level of the inserted dongle is indicated next to *User level*.

4 different levels are defined:
- operator level
- service technician level
- theatre technician level
- Barco technician level

Each level can access specific functions in the service module. Only the operator level functions are described in this manual.

# 4.4 Software Appearance

## What can be changed ?

The following items can be changed:
- Language of the software.
- Look and feel of the software.

## Language selection

Click on **Appearance** (image 4-2).

   The appearance window opens.

Click on the combo box next to *Appearance of the application*. (image 4-4)

   The possible languages will be displayed.

Select the desired language.

Click on **Apply** to confirm the selection.

   An info window will be displayed to announce that the language change will take place after restarting the software.

Image 4-4
Language selection

## Look and feel of the software

Click on **Appearance** (image 4-2).

The appearance window opens.

Click on the combo box next to *Look and Feel*. (image 4-5)

The possible look and feels will be displayed.
The following are possible:

- Windows
- Java

An info window will be displayed to announce that the look and feel change will take place after restarting the software.
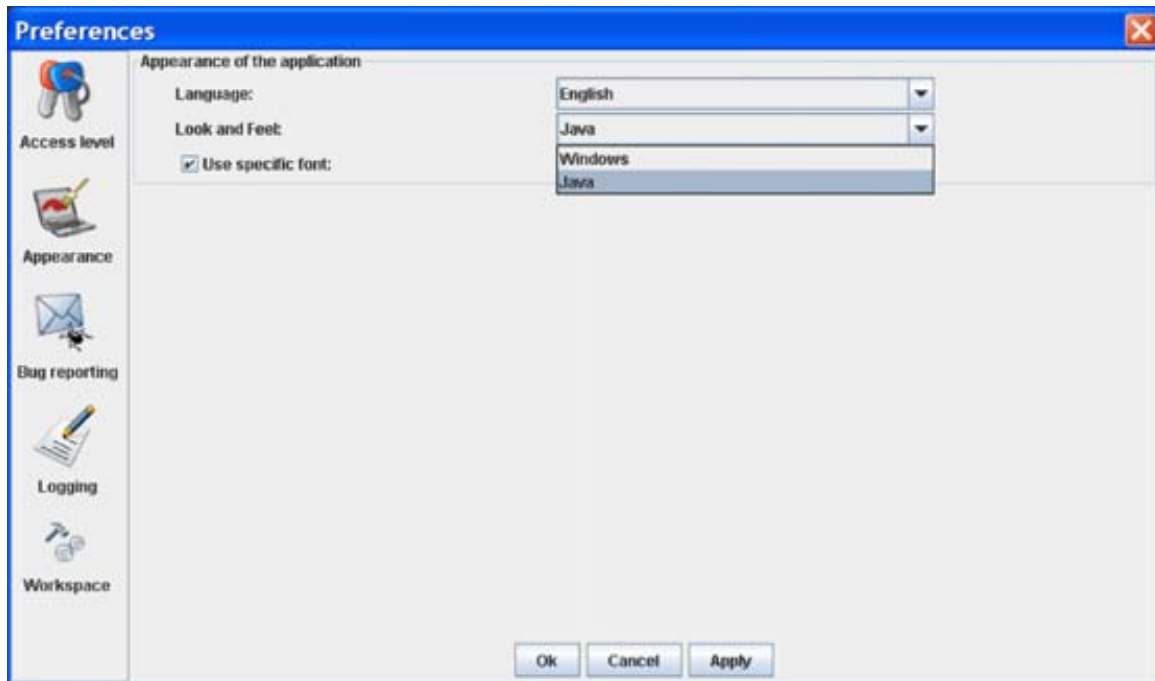
Image 4-5
Look and feel software

> **Screen shots in this manual are made for a Java look and feel.**

## Use of specific fond

Click on **Appearance** (image 4-2).

  The appearance window opens.

Check the check box in front of Use specific font. (image 4-6)

  The drop down menu becomes available.

Click on the drop down box and select the desired font.

Click on **Apply** to confirm the selection.

  An info window will be displayed to announce that the look and feel change will take place after restarting the software.
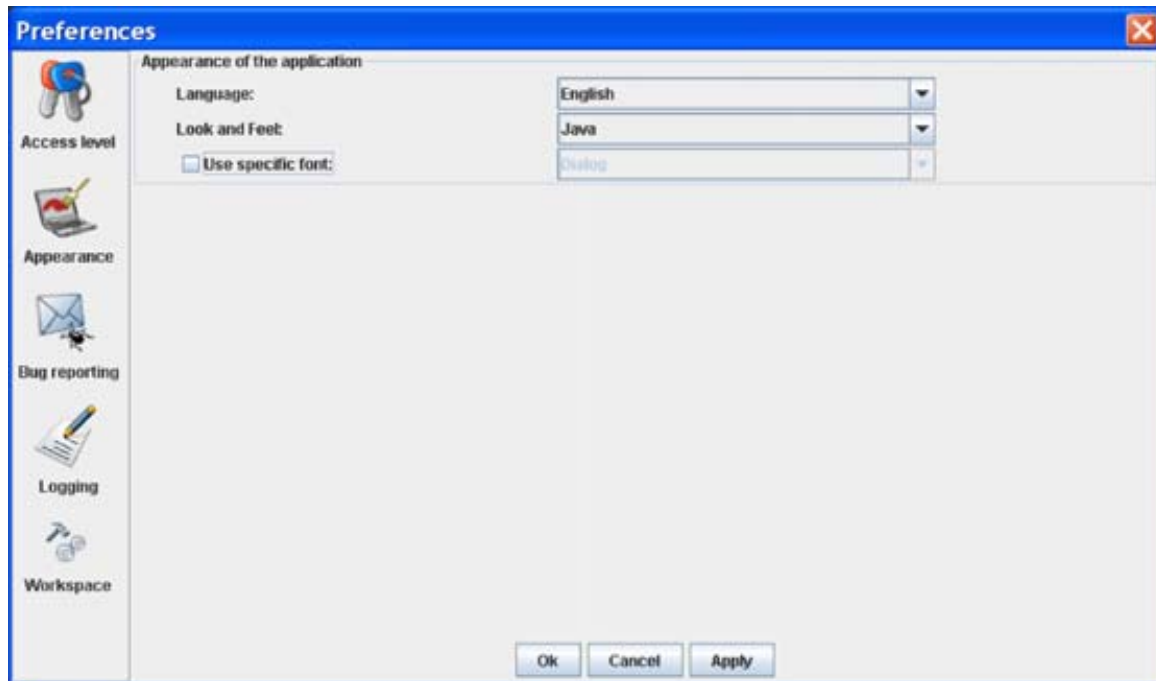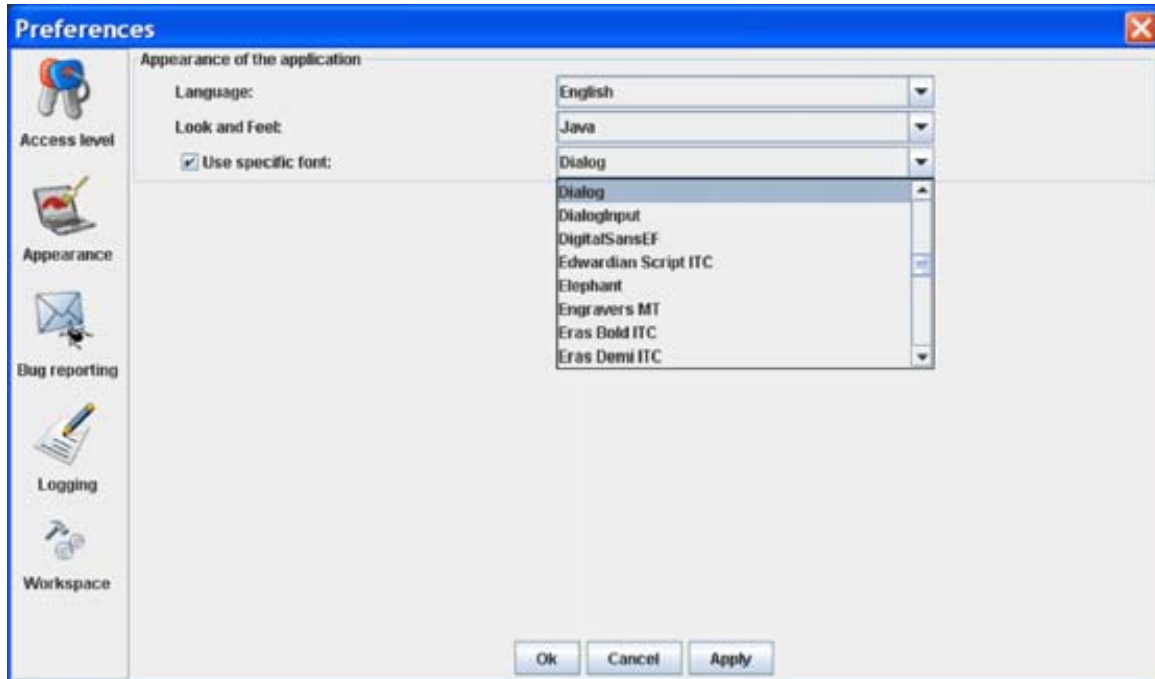
Image 4-6
Use of specific font

## 4.5 Bug report setup

> **(i)** **SMTP**
>
> SMTP (Simple Mail Transfer Protocol) is a TCP/IP protocol used in sending E-mail.

### Setup bug report

Click on **Bug reporting**. (image 4-7)

The bug report setup window appears. (image 4-8)

Bug reporting is by default enabled.

Fill out the Personal data.

This personal data will be incorporated in the bug report so that Barco can contact you.
Personal data contains the following information :
- First name
- Last name
- Organization
- E-mail address
- Telephone number
- Mobile number

Click on **Edit mail settings**.

The mail settings window opens. (image 4-9)

Fill out *Your mail account settings*.

The following settings should be entered :
- Your E-mail address
- Organization
- Barco's E-mail address, automatically filled out when installing the software.

If you want to receive a copy of the bug report E-mail to Barco, check this check box.

Fill out the address of the SMTP mail server.
> *Tip:* *Contact your system administrator in your organization to obtain the correct address.*

Fill out the port of the mail server. Your system administrator can help you. The port is default set on 25.

Click **OK**.



Image 4-7
Bug report selection



Image 4-8
Bug report setup window



Image 4-9
Mail setup window

## 4.6 Logging

**Start up**

Click on **Logging**.

The logging preferences window opens. (image 4-10)
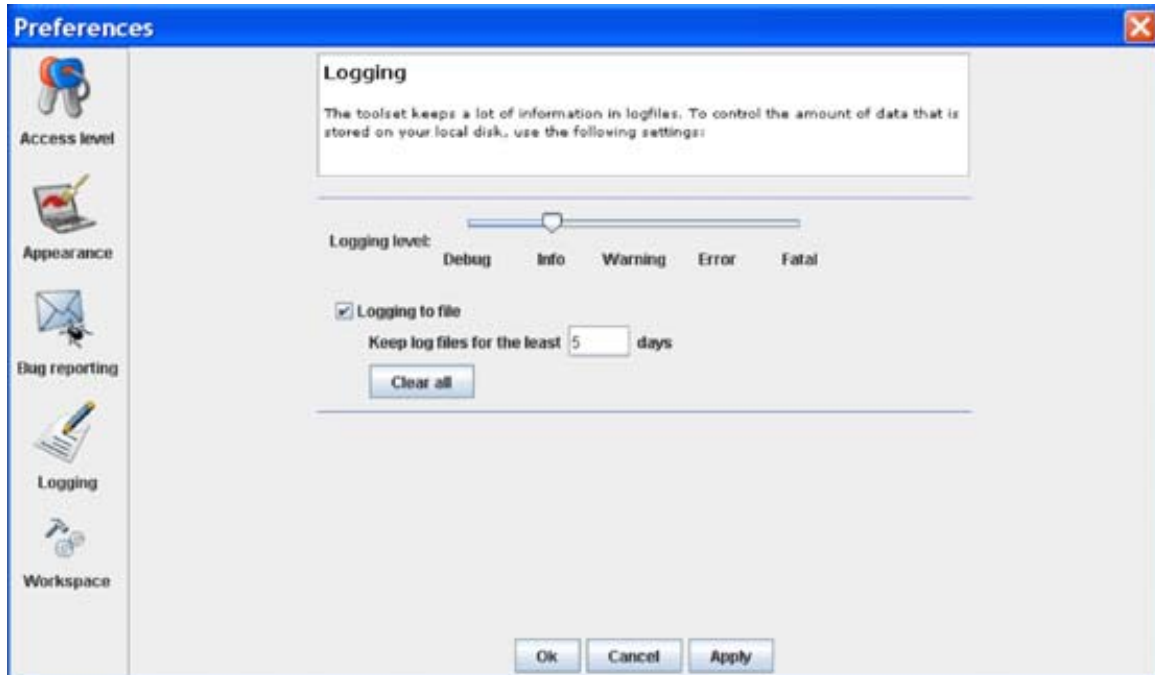
Image 4-10
Logging and debugging preferences

## Logging level

Click on the slider bar to set the desired logging level.

The following levels are possible:
- Debug
- Info
- Error
- Warning
- Fatal

## Message to log file

The logging about the behavior of the program can be logged in a file. Each time the program is started a new log file is created. The file is saved in a subdirectory *log* of the Projector Toolset install directory. The file name contains the date and the sequence of start up at that date.

The logging level can be set to limit the number of data. By default, *Info* level is setup. Other levels are *Debug*, *Warning*, *Error* and *Fatal*.

Check the check box in front of *Write log messages to file* if you want to activate the logging. This is a preferred setting.

The period a logging must be saved on disk can be set. Default set to 20 days. All logging older than 20 days will be removed.

When the period is set to "0", only the last created logging will remain on the disk.

To clear the complete logging directory, click once on **Clear all**.

# 4.7    Workspace selection

## Start up

Click on **Workspace selection**. (image 4-11)

The workspace selection dialog box opens.

To change to another workspace, click on the drop down box and select the desired workspace. (image 4-12)
Or,
click on **...** to open an *Open* dialog box (a2).

Browse to a workspace or enter a new workspace in the *File name* field.

Click on **Open** (b).

The current configurations will be closed.

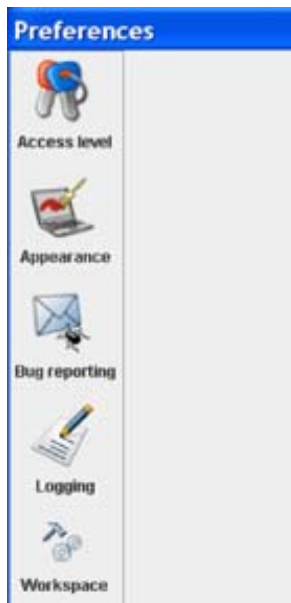Click on **Apply** to apply the new workspace (c).



Image 4-11
Select Workspace preferences
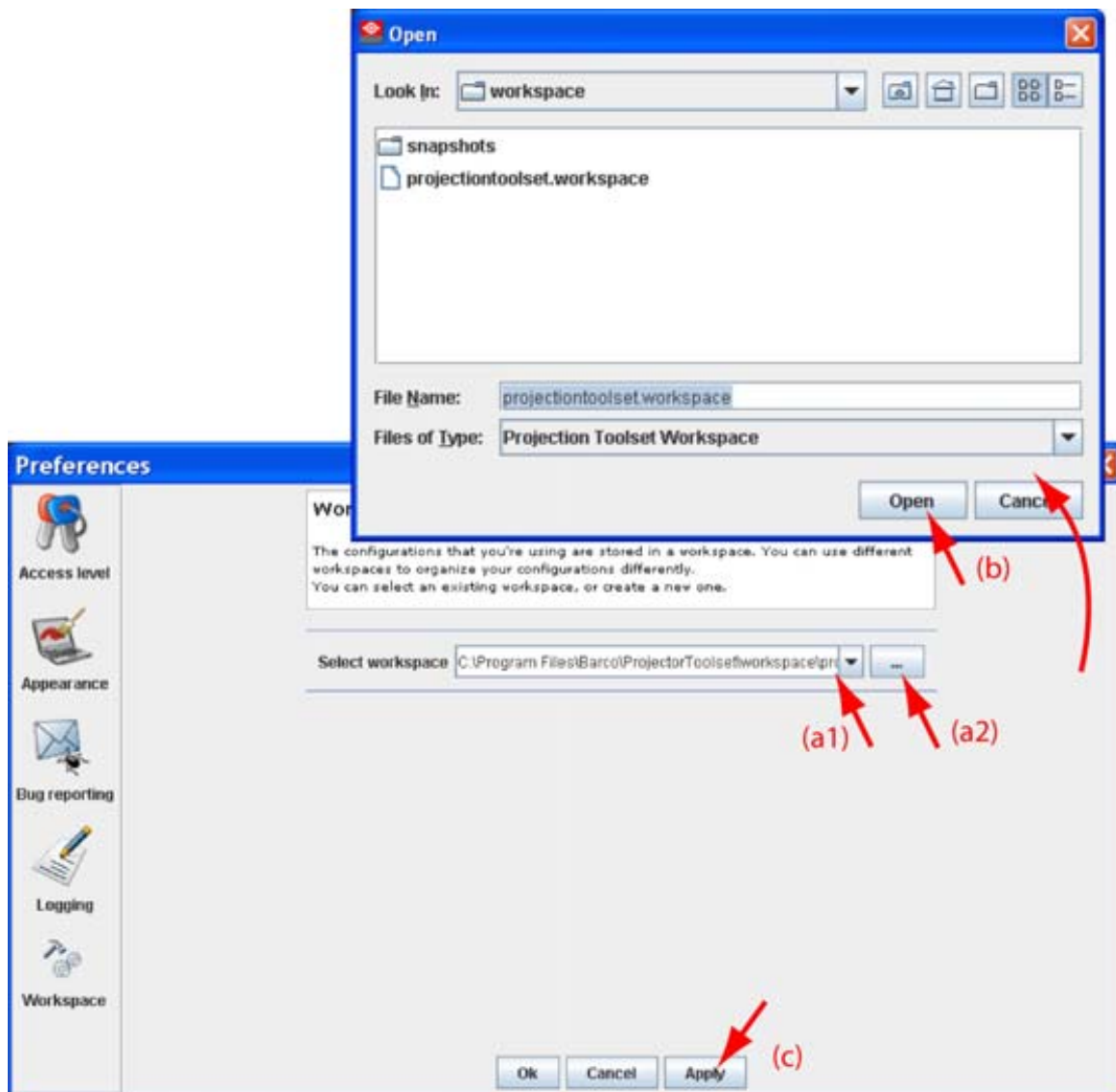
Image 4-12
Selecting a workspace

# 5. CONFIGURATOR

- • Introduction
- • Configurator window
- • Create a new configuration
- • Add projector to a configuration
- • Reconnect a projector
- • Move projector to a group
- • Edit projector properties
- • Configuration preview
- • Configuration properties
- • Configuration properties, new group
- • Preview layout properties
- • Multiple projector selection

## 5.1    Introduction

### Overview

The configurator makes it possible to create configurations and to change the settings of each device separately.

### Start up

To start up the configurator, just click on the configurator icon () on the navigation button bar or click on **Modules** and select *Configurator*.



Image 5-1
Configurator start up

## 5.2    Configurator window

### Overview

The configurator window allows to create new configurations and to manage the projectors inside a configuration.

## 5.3    Create a new configuration

### Steps to be taken

Click **File** on the menu and select *New → New configuration* (a). (image 5-2)

Or,
press **Ctrl** + **N**.

The *New configuration* dialog box opens (b).

Fill out a name for the new configuration next to *Configuration* name. The default name will be *Configuration_'digit'* (c).
*Note: Only the characters a to z, A to Z, 1 to 9 and (, ), _, -, @ or allowed in a name.*

When it is the first configuration for this workspace, only the option *Create by adding projectors* is available.

When there are already configuration available, the option *Based on available configuration* becomes available

Check the radio button of your choice (d).

When *Based on available configuration* is checked, click on the combo box and select the configuration on which the new configuration must be based on (e).
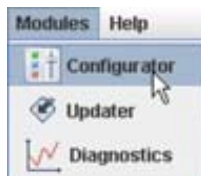
Click **OK** to create the new configuration (f).



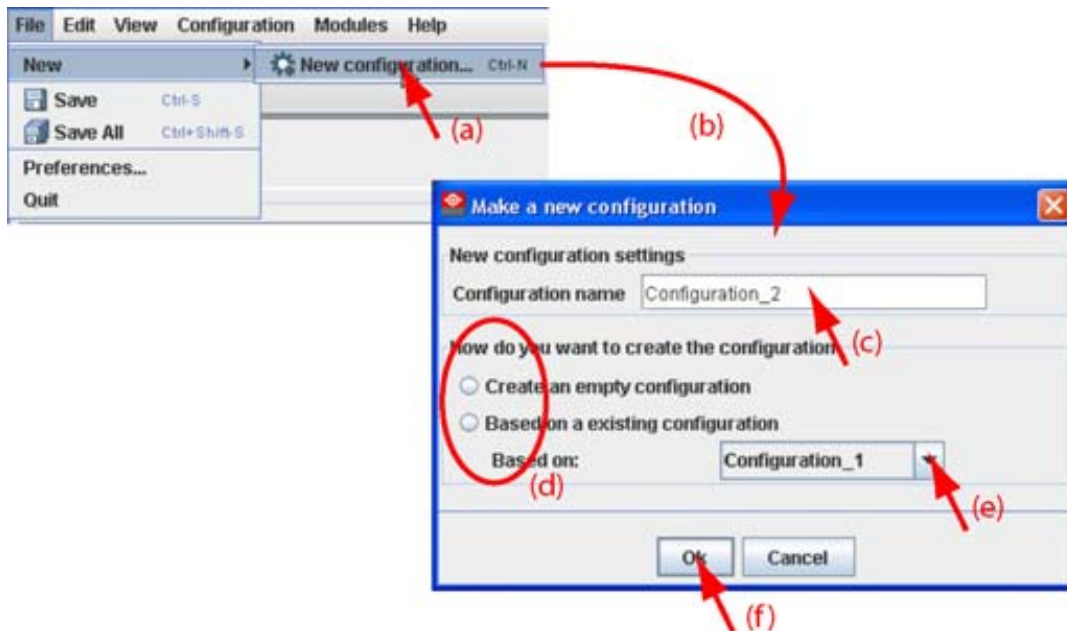Image 5-2
Create new configuration

# 5.4 Add projector to a configuration

- • Add projector
- • General properties
- • Connection setup
- • Decorator setup

## 5.4.1 Add projector

**The possible projectors types depends on the installed plug-ins.**

## About adding a projector

To make it more easy to find back a projector while adding it to the software, the different projectors are grouped in categories.

The following categories are available for the moment (depending on the loaded plug-ins):

- Digital cinema: this category contains all supported digital cinema projectors and touch panels.
- Mid venue: this category contains all supported projectors from the CLM and SLM series.
- Large venue: this category contains all supported projectors from the FLM series.
- XLarge venue: this category contains all supported projectors from the XLM series.

## How to add

Click **Configuration** on the menu and select *Add* (a). (image 5-3)

Move the cursor to the right and select the desired category.

Move the cursor again to right and select the desired projector.

The *Create projector* dialog box opens with the selected device type pictograph at the right side (b).

Enter the different device properties such as the projector identification, the connection parameters and projector decorator for the configuration preview.
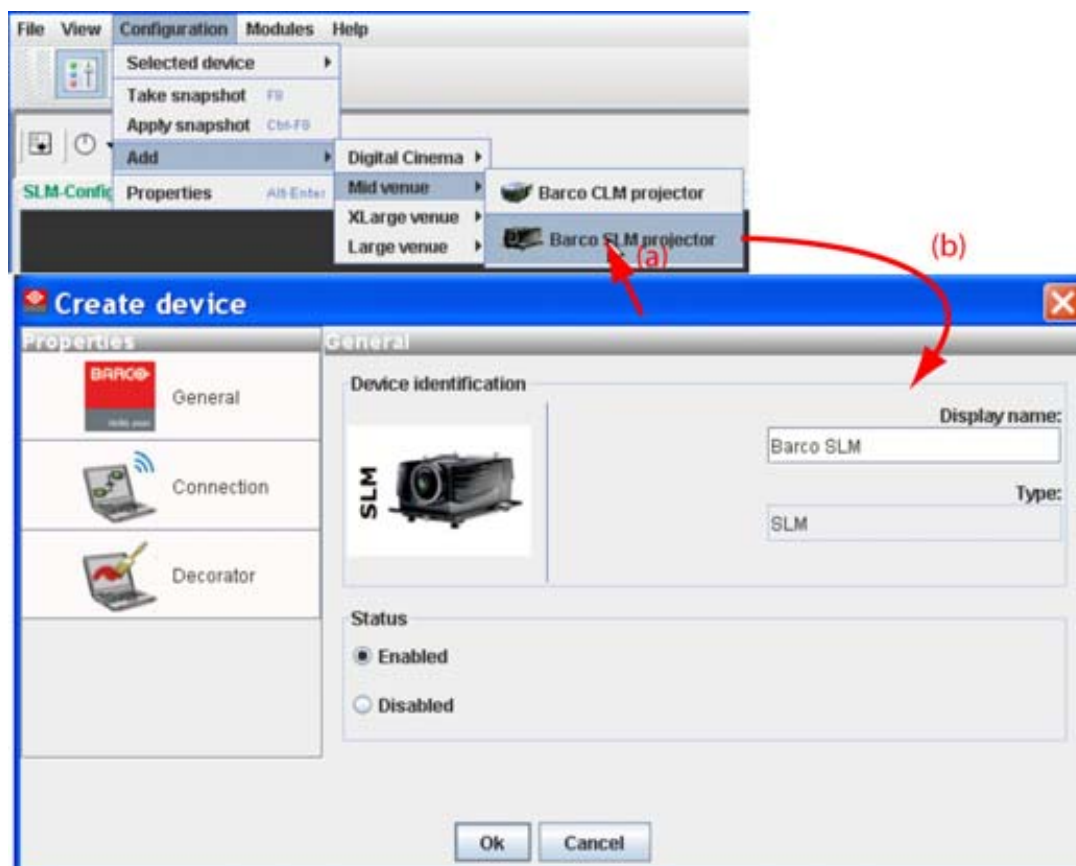


Image 5-3
Add projector

> **When adding twice the same projector, once via a network connection and once via a serial connection, a message will be displayed to warn the user that there is already an instance with the same projector and that problems with the communication are possible. The projector will be added but Projector Toolset advises to uninstall one of the connections.**

### 5.4.2 General properties

#### Overview

Click on the **General** tab to open the general properties if not yet open (a).
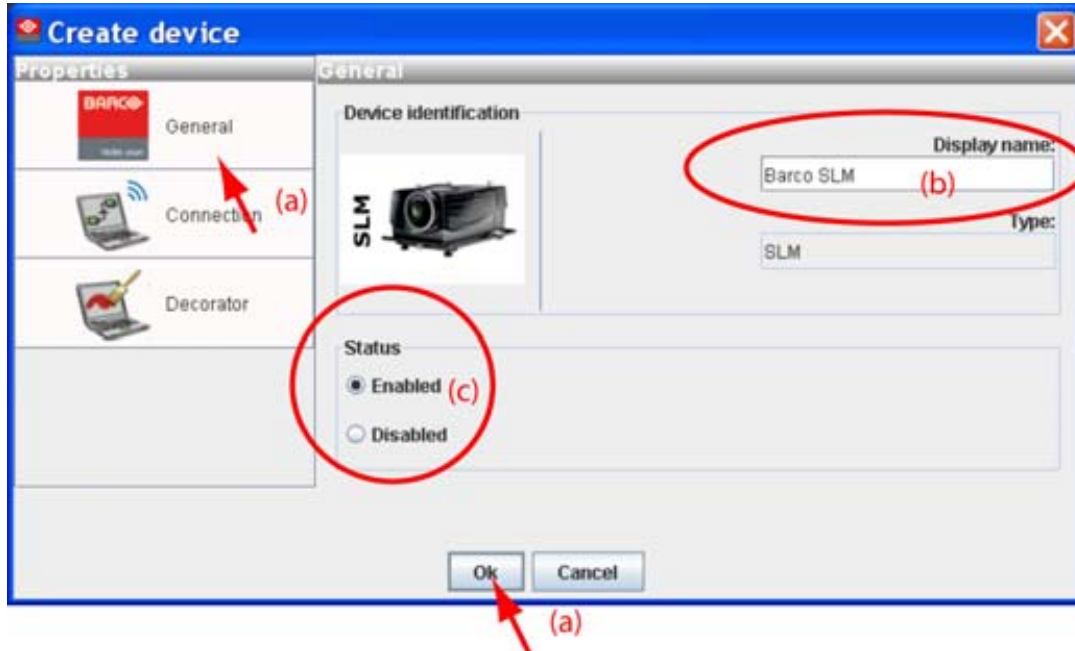


Image 5-4
General projector properties

#### Projector's identification

The default display name is Barco followed by the projector type.

This name can be changed to any other name. Click in the name field, select the current name and enter a new name (b).

Next to the display name, the device type is indicate with the name and a device icon.

#### Projector status

Indicates the communication status of the projector (c).

- enabled: communication with projector possible
- disabled: no communication with projector possible

### 5.4.3 Connection setup

- Set up a serial connection
- Set up a Ethernet connection

> **No serial connection possible when using Projector Toolset on MAC OS X or on a Linux system !**

### 5.4.3.1 Set up a serial connection

**Only possible when Projector Toolset runs on a Microsoft Windows platform.**

## Physical connection

Before a serial connection can be made, connect a serial cable from PC to the RS232IN connector of the projector.

**RS232**

An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either D-SUB 9 pins or D-SUB 25 pins connectors. This standard is used for relatively short-range communications and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length and type of connector to be used. The standard specifies component connection standards with regard to computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard. Logical '0' is > + 3V, Logical '1' is < - 3V. The range between -3V and +3V is the transition zone.

## Necessary parts

Straight serial cable

## Software connection

Select the *Connection* properties tab (a). (image 5-5)

> The right pane changes to the connection setup page.

Click on the radio button next to *A projector connected to a serial port* to select the serial connection (b).

Click in the *Projector address* input field and enter the projector address (c).

> This address must be between 0 and 255.

Select the serial port of your PC connected with the projector. Click on the drop down box and select the corresponding port (d).

Click **OK** to make the connection.

Image 5-5
Set up a serial connection

## Scan projector

If the projector address and the communication port are not known, click on **Device scan** to get an overview of the serial connected projectors (a).
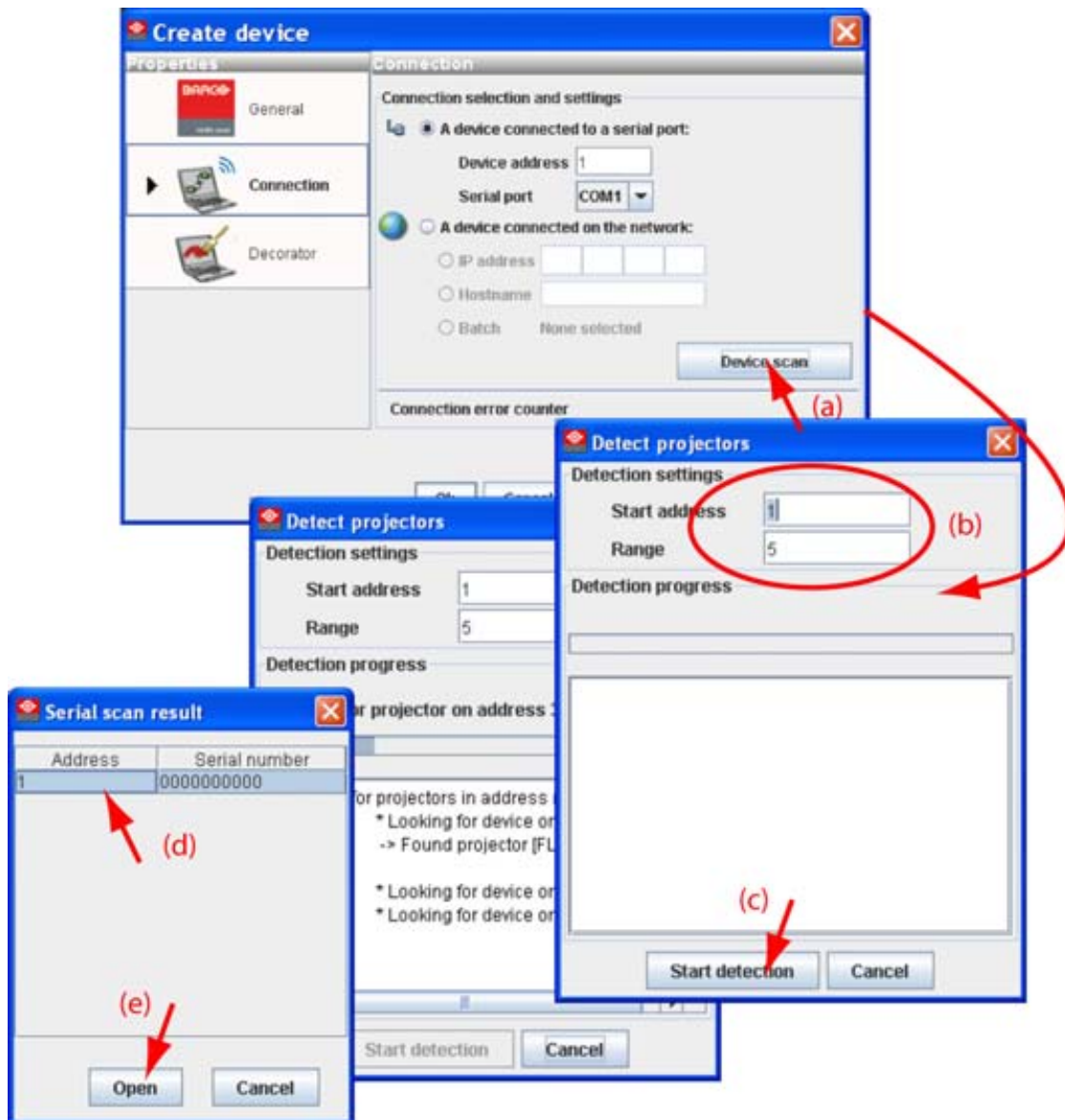
Image 5-6
Detect serial connected projectors

Fill out the address range (b) and click **Start detection** (c).

A *Serial scan result* dialog box opens.

Select the desired projector (d) and click **Open** (e). A connection is made with the selected projector.

### 5.4.3.2 Set up a Ethernet connection

#### Possibilities

To establish a Ethernet connection, the following ways are possible:
- Enter an IP address
- Enter a host name
- Scan the net work for the connected projectors

> **IP**
>
> Internet Protocol. The network layer of TCP/IP. Required for communication with the internet.

> **Host name**
>
> This is the name that will be returned, along with the IP address in response to the UDP broadcast query for projectors/touch panels.

> **DNS server**
>
> Computers, Projectors, Touch panels connected to a network are referenced by their IP address. The only problem is that remembering IP addresses is not easy. If you need to use hundreds of addresses then it will become impossible to remember them. This is why domain names are created. Internet names (domain and host names) are just aliases to these IP addresses. When you use an Internet address it is automatically translated to an IP address. In fact a program or device that translates those Internet names to IP addresses is called a DNS Server.

## Via entering an IP address

Select the *Connection* properties tab (a). (image 5-7)

    The right pane changes to the connection setup page.

Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).

Click on the radio button in front of *IP address* (c).

Enter the IP address (d).
*Note: An address contains 4 octets with a maximum value of 255.*

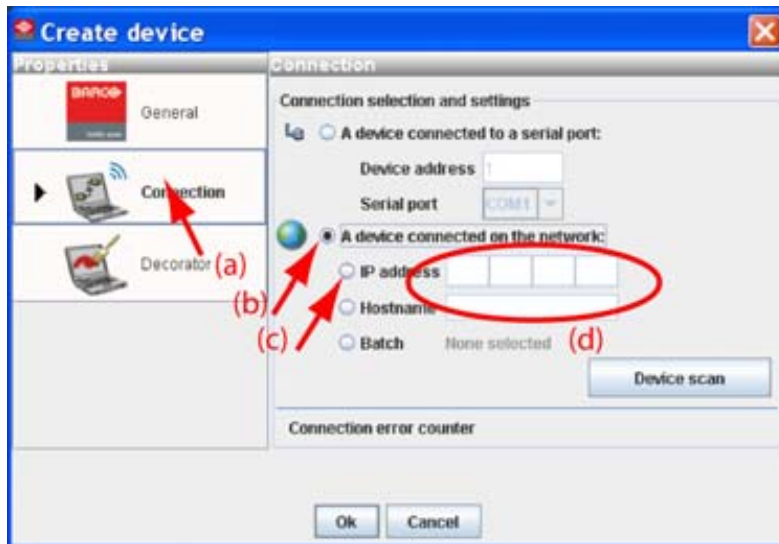Click **OK** to make the connection.



Image 5-7
Make connection via entering IP address

## Via entering a host name

Select the *Connection* properties tab (a). (image 5-8)

    The right pane changes to the connection setup page.

Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).

Click on the radio button in front of *Host name* (c).

Click in the input field and enter the host name (d).
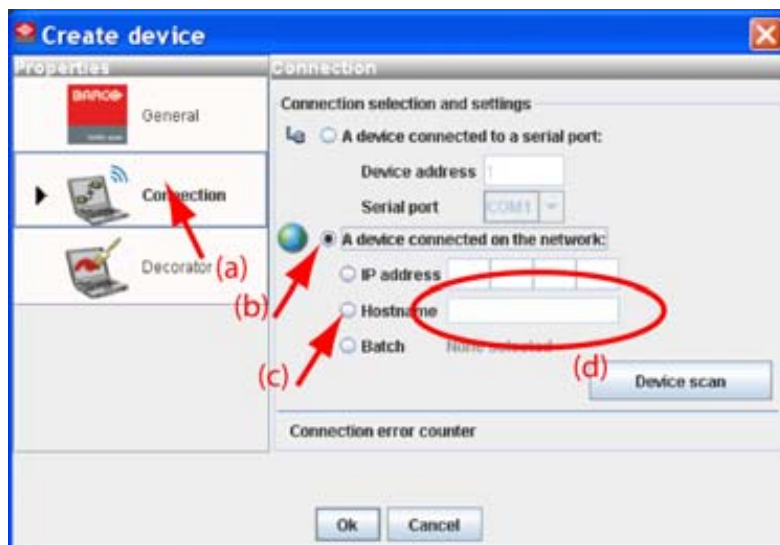
Click **OK** to make the connection.



Image 5-8
Create connection via host name

> **Making a connection via a host name is only possible when the host name is known by the network DNS server.**

## Via a projector scan single connection

Select the *Connection* properties tab (a). (image 5-9)

The right pane changes to the connection setup page.

Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).

Click on the **Device scan** button (c).

The *Scanning projector* progress bar appears. The broadcast query (based on UDP) for projectors scans the complete LAN network to detect available projectors on the network. The scanning results are displayed in the *Discover projectors* dialog box (d). Only the projector of the added projector type and the not yet added projectors to the configuration are in the list.

Click on the desired IP address to select (e) and click **Open** (f).

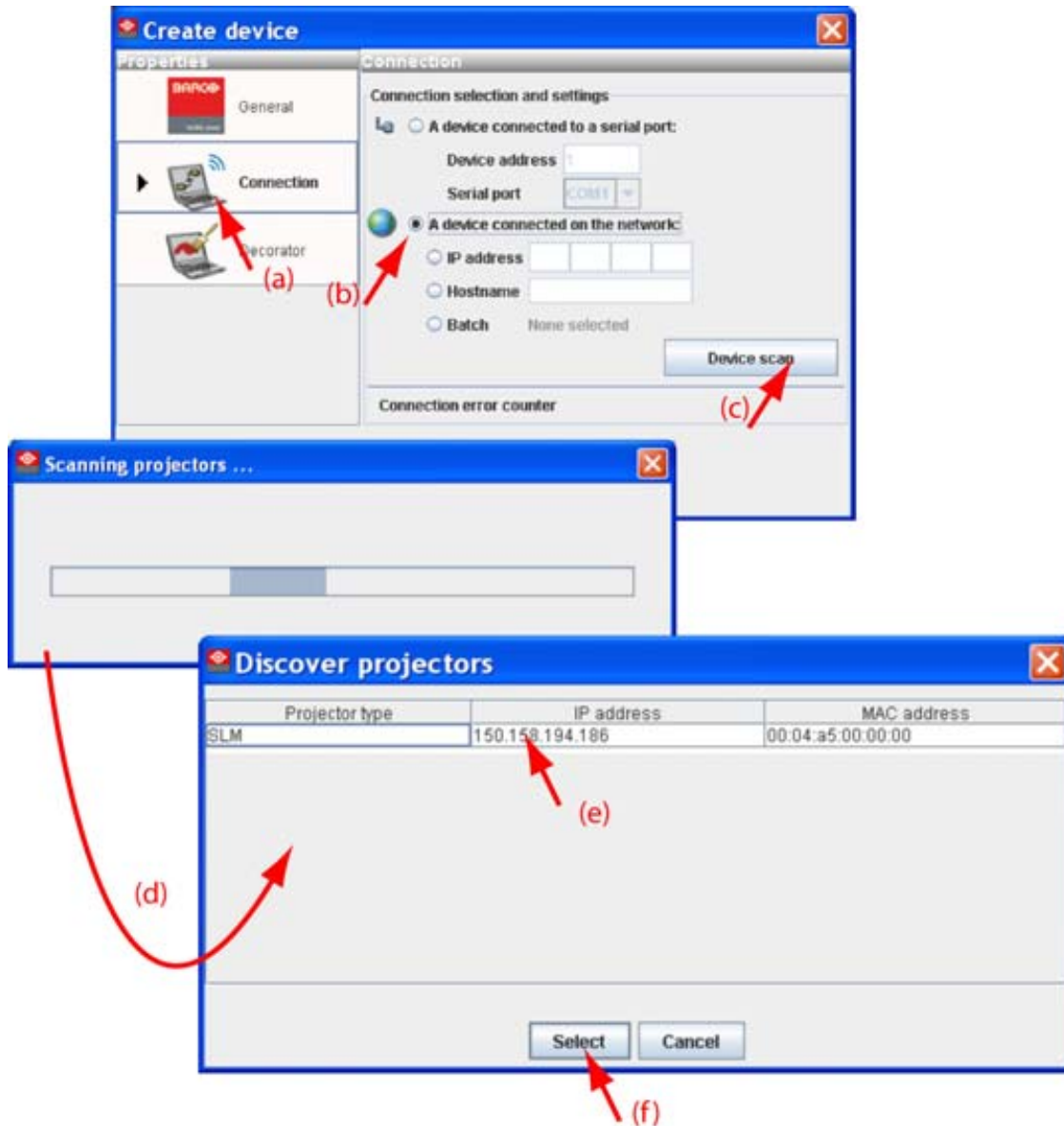A connection is made with the selected projector.

Image 5-9
Create a connection via projector scan

## Via a projector scan multiple connection (batch)

Select the *Connection* properties tab (a). (image 5-10)

   The right pane changes to the connection setup page.

Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).

Click on the **Device scan** button (c).

   The *Scanning projector* progress bar appears. The broadcast query (based on UDP) for projectors scans the complete LAN network to detect available projectors on the network. The scanning results are displayed in the *Discover projectors* dialog box (d). Only the projector of the added projector type and the not yet added projectors to the configuration are in the list.

Hold down the **Ctrl** key and click on the projectors which must be added in batch (e). Click **Open** to add the projectors (f).

   A connection is made with all selected projectors.
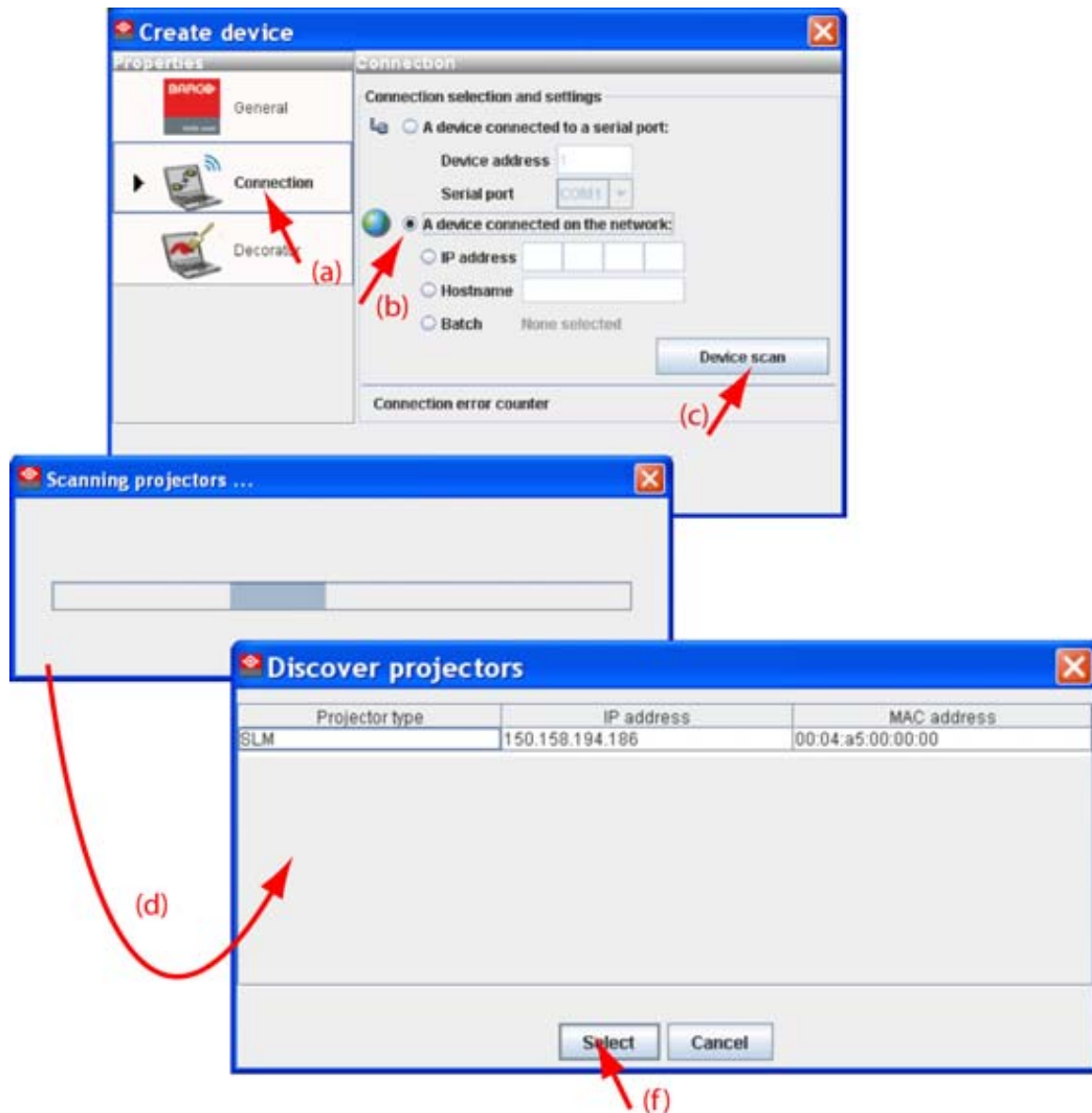
Image 5-10
Batch connection of projectors

### 5.4.4 Decorator setup

#### What is a decorator

Decorator information is extra data about the projector which can be displayed in the configuration preview next to the projector pictograph.
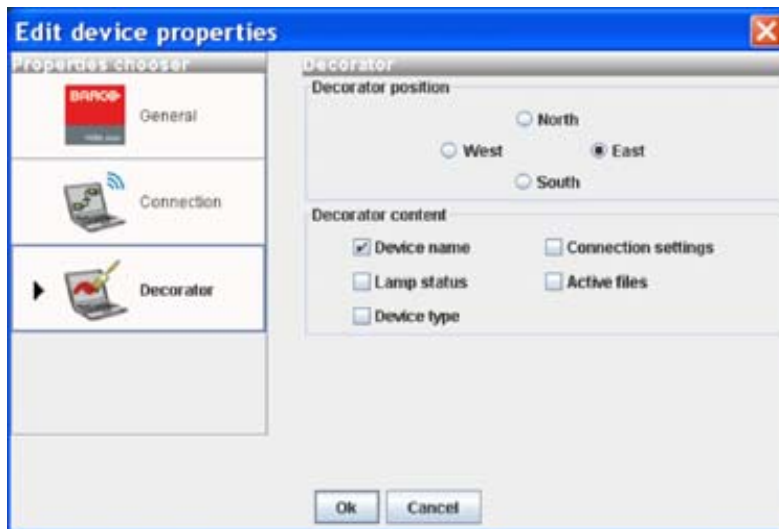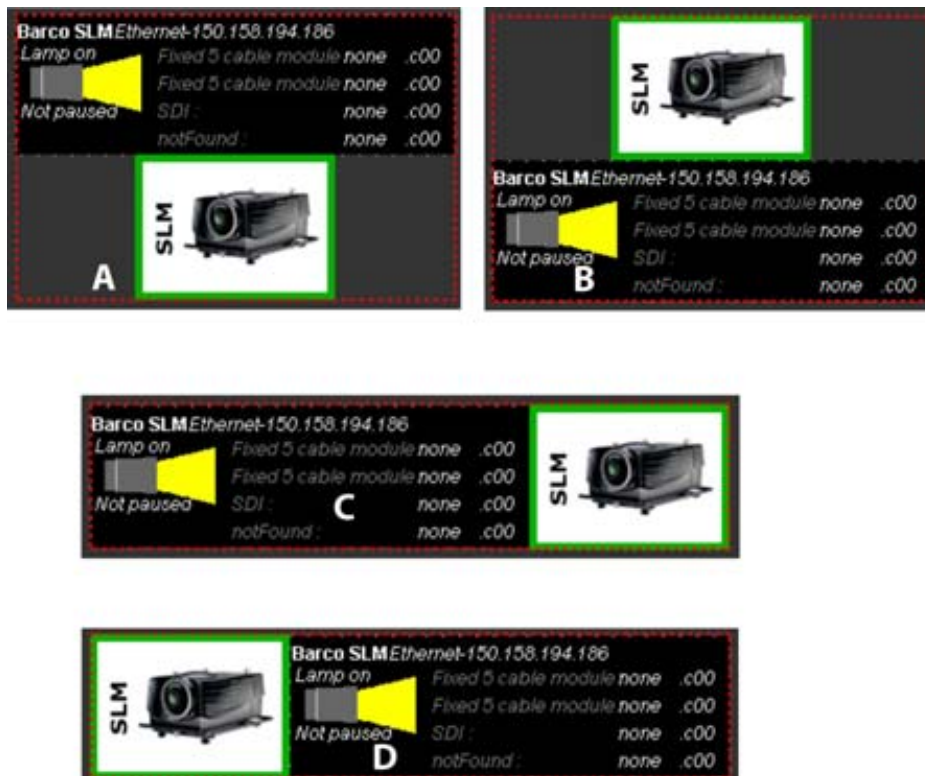
Image 5-11
Decorator properties


Image 5-12
Decorator position and content

A  Decorator north of graph
B  Decorator south of graph
C  Decorator west of graph
D  Decorator east of graph

## Decorator position

The extra information can be place in the north, south, east or west of the projector pictograph.

Click on the desired radio button to determine the decorator position.

**Decorator content**

The following information can be displayed in the configuration preview:

- Projector name
- Connection settings
- Lamp shutter status
- Active files
- Device type

# 5.5 Reconnect a projector

**Via the context menu**

Right click on a not connected projector in the preview pane. (image 5-13)

A context menu opens.

Select *Connect*.

The projector tries to make a connection and to retrieve data. When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.



Image 5-13
Connect projector via context menu

**Via the menu**

Select a not connected projector in the preview pane. (image 5-14)

Click **Configuration** on the menu and select *Selected device → Connect projector*.

The projector tries to make a connection and to retrieve data. When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.



Image 5-14
Connect projector via menu

**Via the projector properties**

Select a not connected projector in the preview pane. (image 5-15)

Open the projector properties via right click and selecting *Properties*.
Or,
via click on **Configuration** on the menu and selecting *Selected device → Properties* (a).

Or,

by pressing **Ctrl** + **Enter**.

The *Properties* dialog box opens (b).

Click on **Connection** (c).

The *Connection* tab opens (d).

Click on **Connect projector** (e).

The projector tries to make a connection and to retrieve data (f). When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.
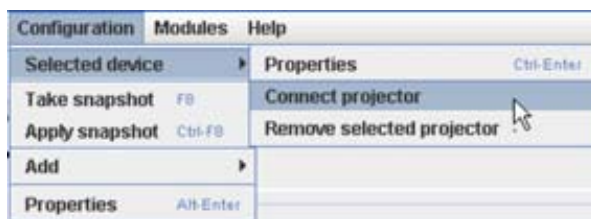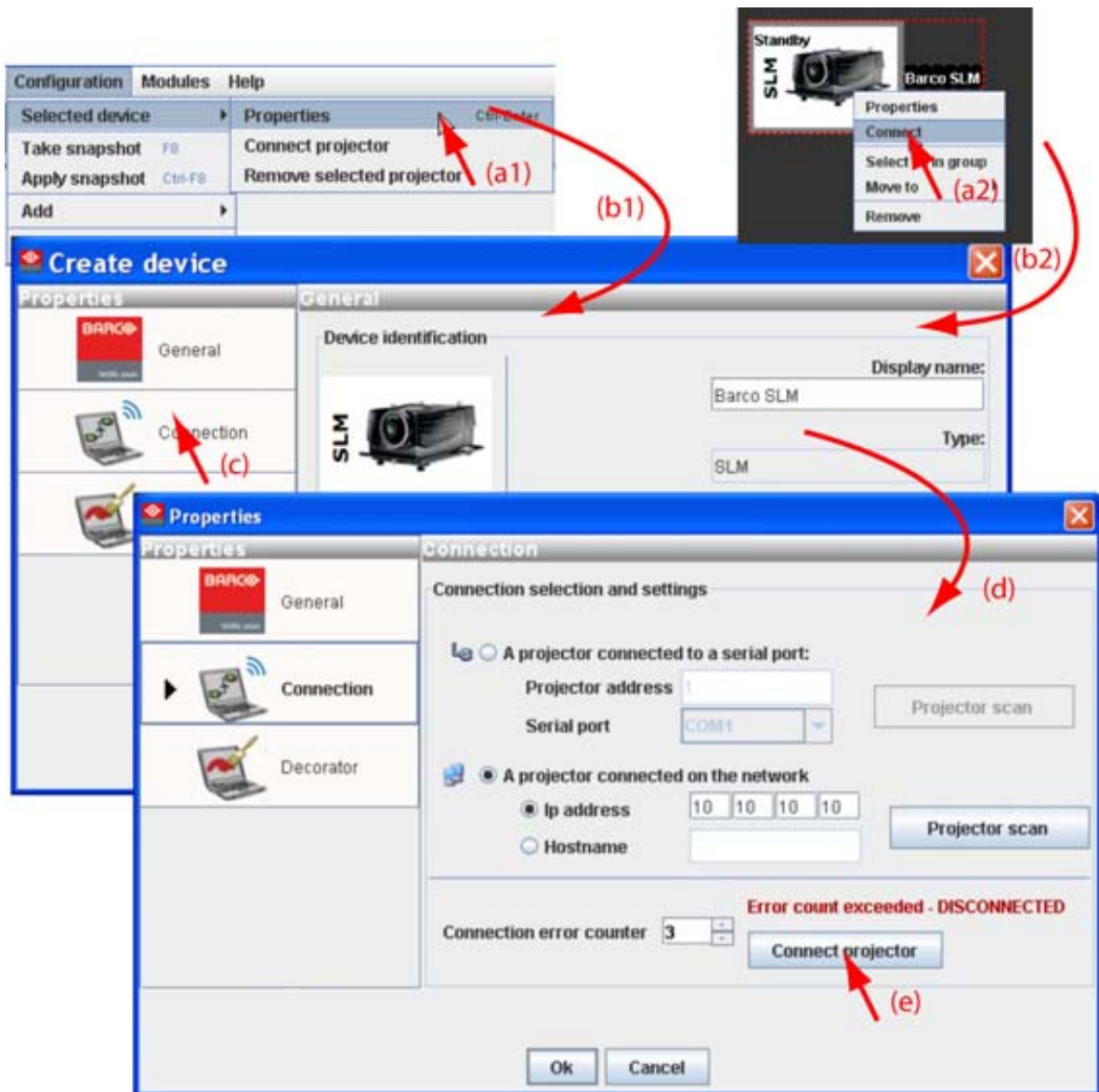


Image 5-15
Reconnect via the properties dialog box

## 5.6 Move projector to a group

### What can be done ?

Projectors can be grouped in new groups are in existing groups. All projectors in one group can be selected then and controlled as one projector.

### How to move to a new group

Right click on the projector icon (a). (image 5-16)

A pop up menu opens.

Select *Move to* and drag your mouse to the right and select *New group* (b).

The create new group window opens (c).

The proposed name next to *Group name* is selected. Enter a name for the new group (d)..

Select a groups color by clicking on one of the proposed colors (e).

Click **OK** to create the new group and to move the selected projector to this group (f).
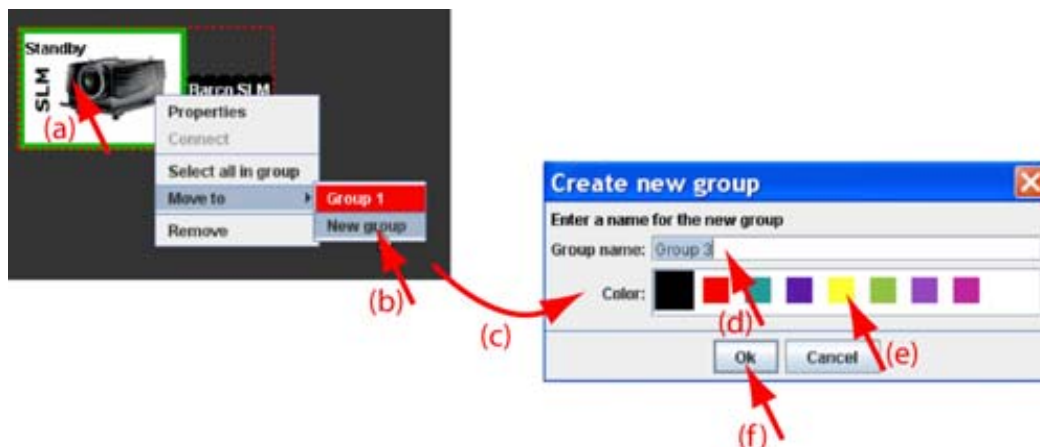


Image 5-16

### How to move to an existing group

Right click on the projector icon. (image 5-17)

A pop up menu opens.

Select *Move to* and drag your mouse to the right and select the desired group.

The selected projector is moved to the selected group.



Image 5-17

# 5.7 Edit projector properties

## Via the menu

Click on a projector to select (a). (image 5-18)

Click **Configuration** on the menu and select *Selected device → Properties* (b).
Or,
press **Ctrl** + **Enter**.

The *Properties* dialog box opens (c).
To edit the:
- general properties.
- connection properties.
- decorator.

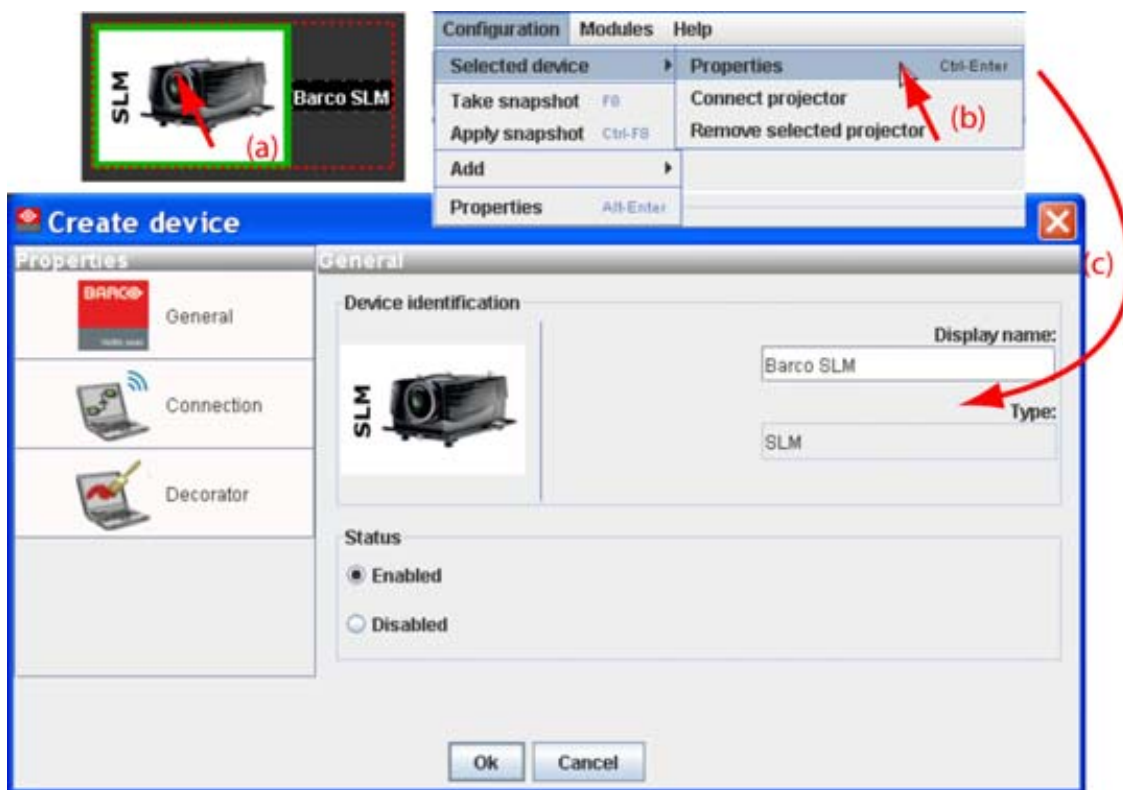see *Add projector to a configuration*.



Image 5-18
Edit projector properties via menu

## Via the context menu

Right click on a projector graph in the configuration preview. (image 5-19)

A context menu opens.

Select Properties.

The *Properties* dialog box opens.
To edit the:
- general properties.
- connection properties.
- decorator.

see *Add projector to configuration*.
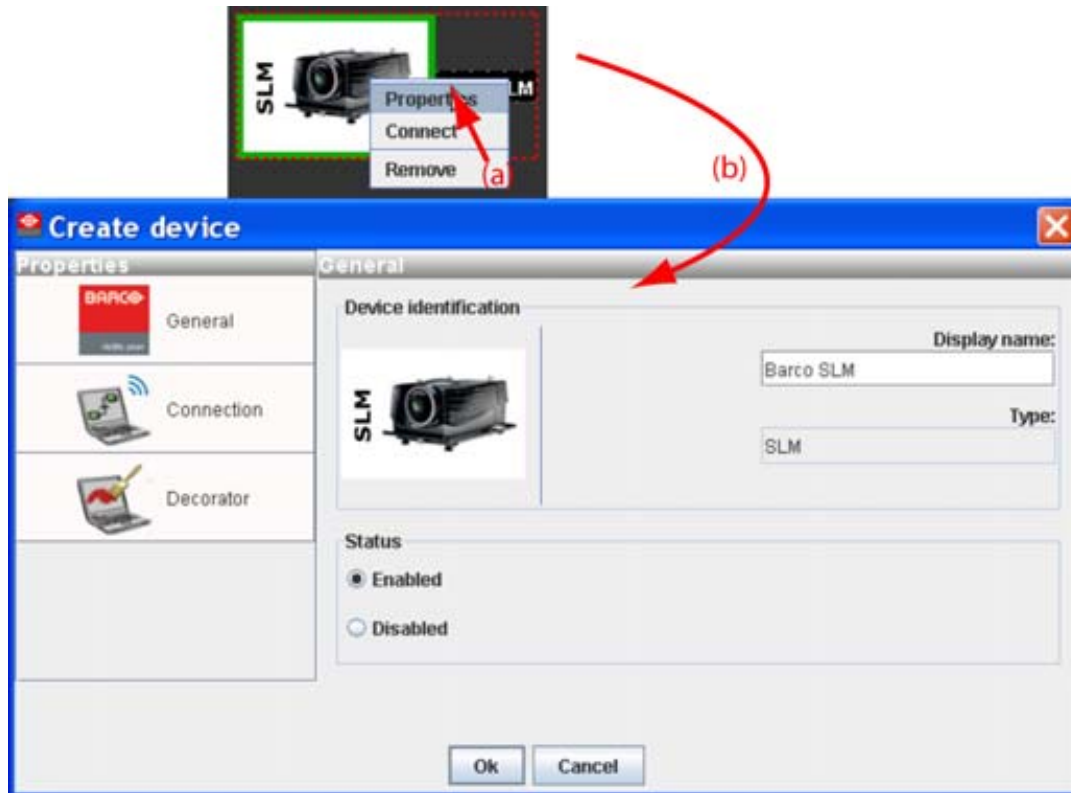
Image 5-19
Edit projector properties via right click

## 5.8    Configuration preview

### Projector status

The border color around the pictograph indicates the projector status.

**Green**: projector is online and there is communication with the projector.

**Grey**: projector is offline.

**Red**: projector is online but there are warnings about the use of the projector.

**Shaded**: projector is disabled.

## 5.9    Configuration properties

### What is available?

The following properties are available:
*   *author* name.
*   *created on*: date and time when the configuration is created (read only).
*   *path*: full path where the configuration is saved (read only).
*   *description*: description which identifies the configuration.

### How to change

Click **Configuration** → *Properties* (a1).

Or,

right click in the preview pane of the configuration preview, but not on a pictograph (a2). (image 5-20)

The *Configuration properties* dialog box opens (b1, b2).

To enter an author, click in the input field next to *Author* and enter the name (c).

To add a description, click in the *Description* field and enter a description for the configuration (d).

Click **OK** to save and close the *Configuration properties* dialog box (e).
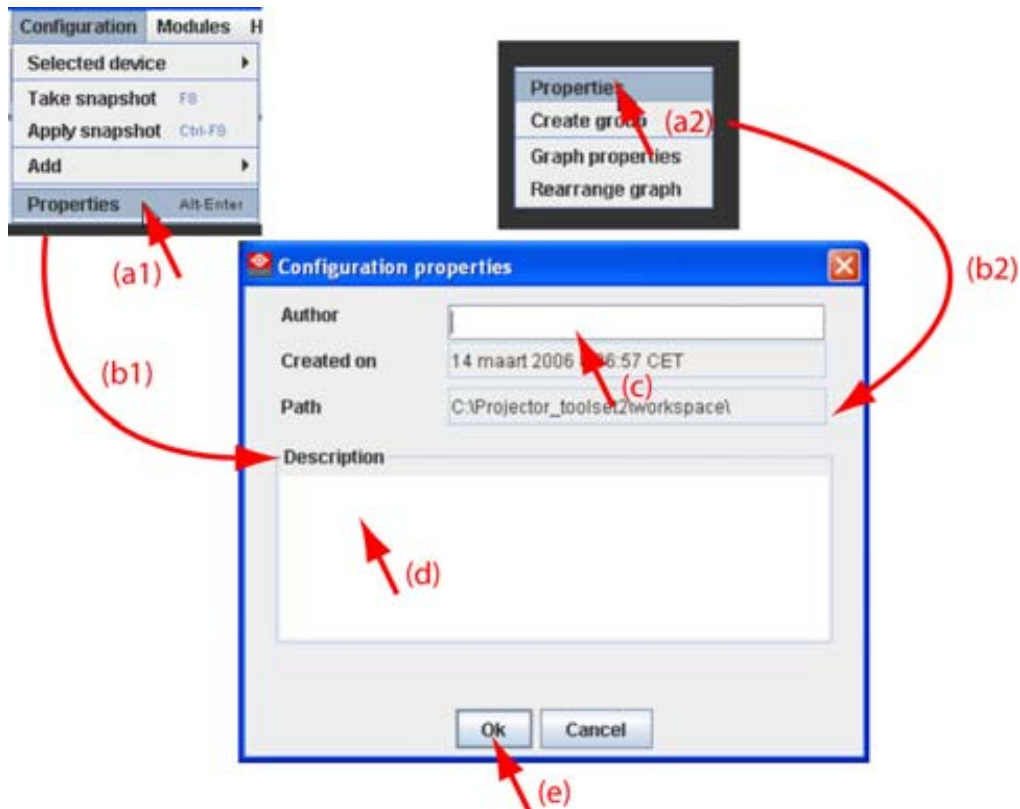


Image 5-20
Configuration properties

## 5.10 Configuration properties, new group

### What can be done ?

A new empty group can be created. Later on, devices can be added to this group.

### How to create a group

Right click in the preview pane but not on a pictograph (a). (image 5-21)

A context menu opens.

Select *Create group* (b).

The *Create new group* window opens.

Enter a name for the group (c) and select a group color (d).

Click **OK** to create the group.

Image 5-21

# 5.11 Preview layout properties

- Background color
- Background image
- Rearrange pictographs in preview pane

## 5.11.1 Background color

### How to set background color

Right click in the preview pane but not on a pictograph (a). (image 5-22)

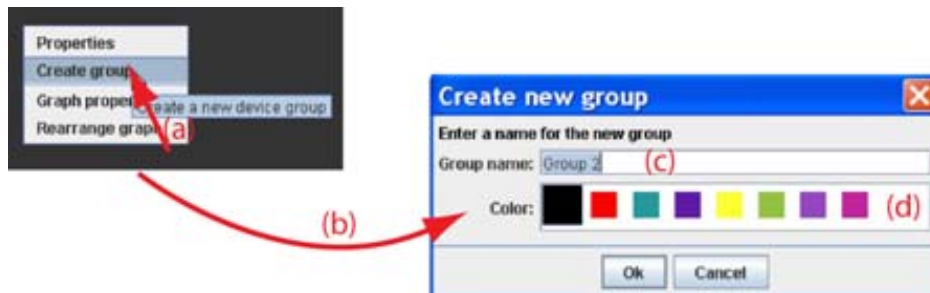A context menu opens.

Select *Graph properties*.

The *Graph properties* dialog box opens (b).

Check the check box next to *Use background color* (c).

Click on **Select a color**.

The *Select color* dialog box opens.

3 ways are now possible to select a color, represented by a tab in the *Select color* dialog box.

| | |
|---|---|
| Tab swatches = way 1 | Via the swatches color dialog, step 6. |
| Tab HSB = way 2 | Via the HSB color dialog, step 7. |
| Tab RGB = way 3 | Via the RGB color dialog, step 8. |

Select the desired color (via swatches = predefined color samples). (image 5-23)

The first selected color will be indicated in *Recent*. When others are selected for a preview, the color indication will also be added in the *Recent* list as first one. Finally, the color selection can be done from the *Recent* list or out of the color pallet.

Each time a color is clicked, a preview is given in the preview pane. Continue with step 9.

Click on the **HSB** tab to display the color pallet (HSB = Hue - Saturation - Brightness). (image 5-24)
A color can be selected in 2 ways:
- Slide the slider next to the color gamut until the wanted color in the color pick field is reached, or fill out the HSB value until the desired color is reached in the pick up field.
- Click in the color field to display the white circle. Drag that circle to the desired tint of the chosen color.

A preview is given in the preview pane. Continue with step 9.

Click on **RGB** tab to display the RGB selection sliders. (image 5-25)

Move the sliders until the desired color is reached, or fill out the RGB values in the input boxes.

A preview is given in the preview pane. Continue with step 9.

Click on **OK** to apply the selected color.
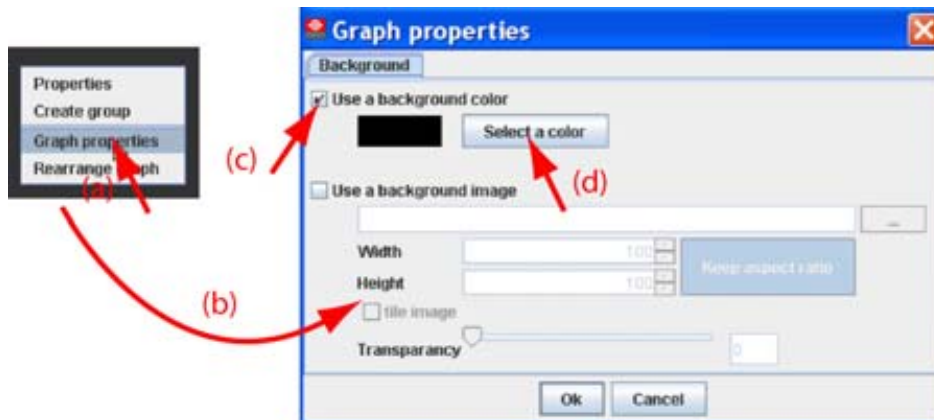


Image 5-22
Set background color


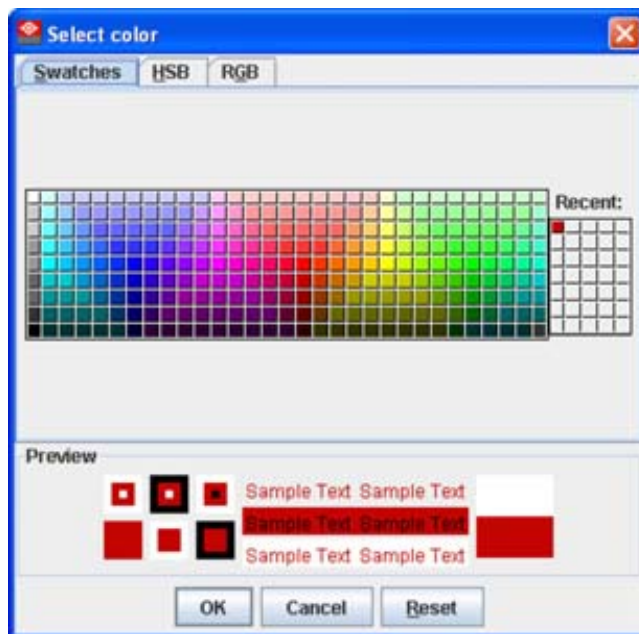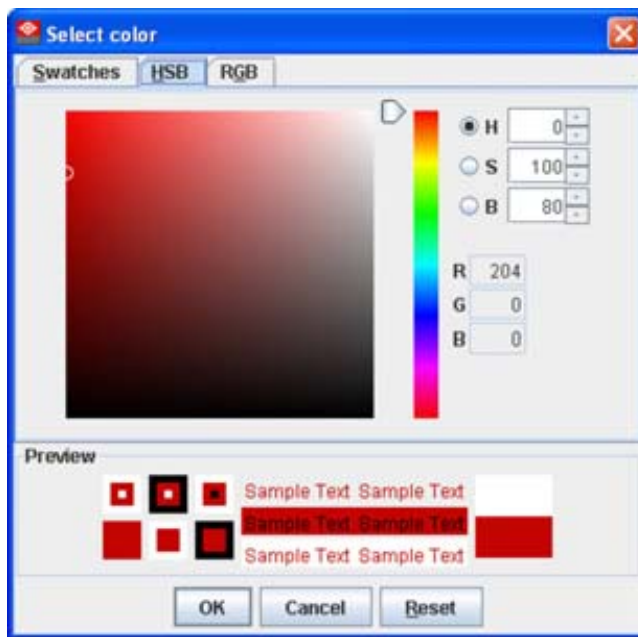
Image 5-23
Select color via swatches
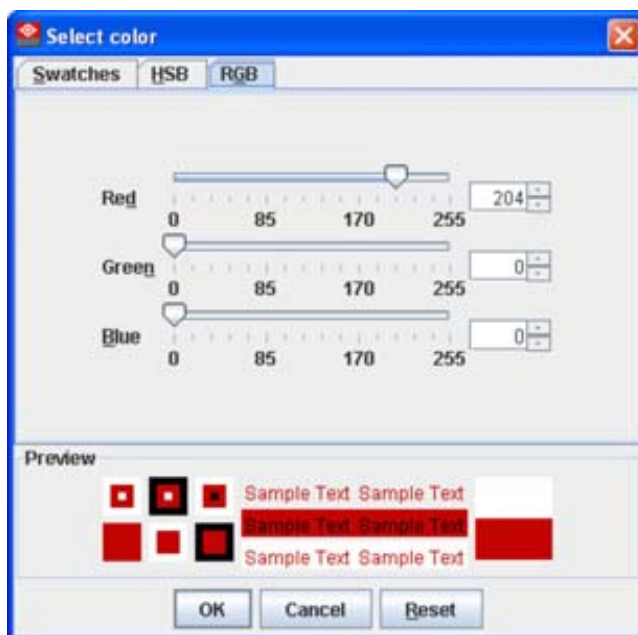
Image 5-24
Select color via HSB



Image 5-25
Select color via RGB

### 5.11.2 Background image

#### How to set background image

Right click in the preview pane but not on a pictograph (a). (image 5-26)

A context menu opens.

Select *Graph properties*.

The *Graph properties* dialog box opens (b).

Check the check box next to *Use background image* (c).

Fill out the complete path to the image (d1) and continue to step 6
*Note: Only jpg, gif and png file are allowed.*

Or,
click on **...** (d2)

An *Open* dialog box opens (d3)

Browse to the desired image (d4) and click **Open** (d5).
Or,
double click on the desired image.

Width an height of the image can be changed by clicking on the up down control next to width and height
(e). To keep the original aspect ratio of the image, activate button **Keep aspect ratio** (f).

To tile the image over the complete canvas, check the check box before *Tile image* (g).

Set transparency level by clicking on the slider and dragging to the desired location (h)
Or,
by clicking in the input field next to the slider and entering the desired value with the keyboard.
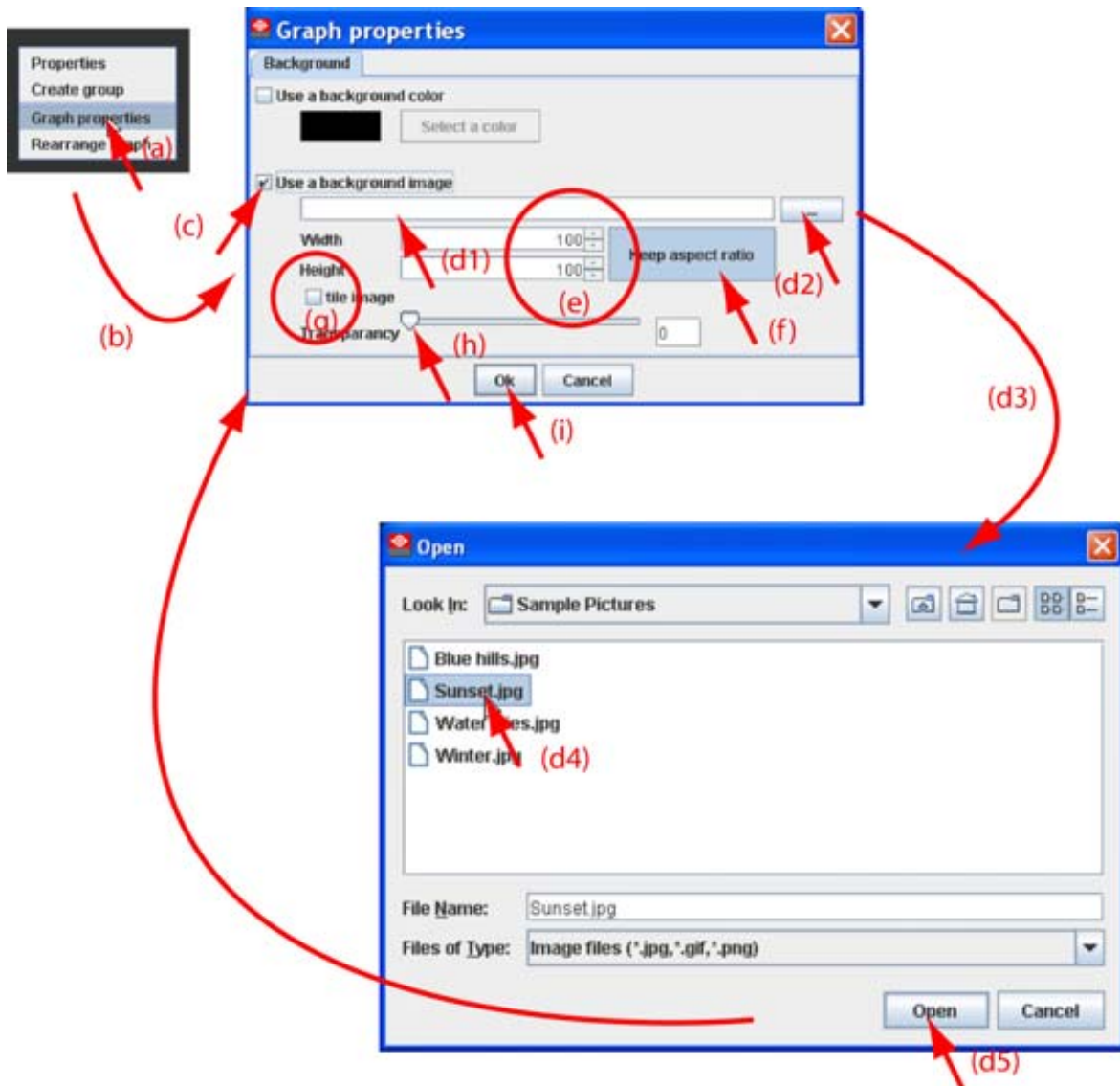


Image 5-26
Set background image

### 5.11.3   Rearrange pictographs in preview pane

#### How to rearrange

Right click in the preview pane but not on a pictograph. (image 5-27)

A context menu opens.

Select *Rearrange graphs*.

The pictographs are rearranged in the preview pane.



Image 5-27
Rearrange pictographs

# 5.12  Multiple projector selection

#### What be done?

Multiple projectors, same type or different type can be selected in the preview pane. The settings which are common are displayed in the settings pane. The non common settings are grayed out. The displayed settings are those of the first selected projector, indicated with red dotted square, and do not tell anything about the status of the other selected projectors.

When adjusting a common setting, the selected command is sent to all projectors in the selection.

E.g. when the GUI shows that the lamp is on, that means that the lamp of the first selected projector is on, but the lamp is not necessary on for all other selected projectors. To be sure that the lamp is on for all projectors, switch off first the lamp of the first selected projector and then switch on the lamp again. The lamp of all projectors will be on.

#### How to make a multiple selection

Click on the first projector in the preview pane. (image 5-28)

A red dotted area indicates the selection. The settings of this projector will be shown in the settings pane.

Hold down the **CTRL** key while clicking on other projectors to add to the selection.
*Note: Different type of projectors can be selected.*

A white doted area will indicate that the projector is added to the selection.

Only the common adjustable settings are now displayed in the settings pane. The actual displayed value is the value of the first selected projector.
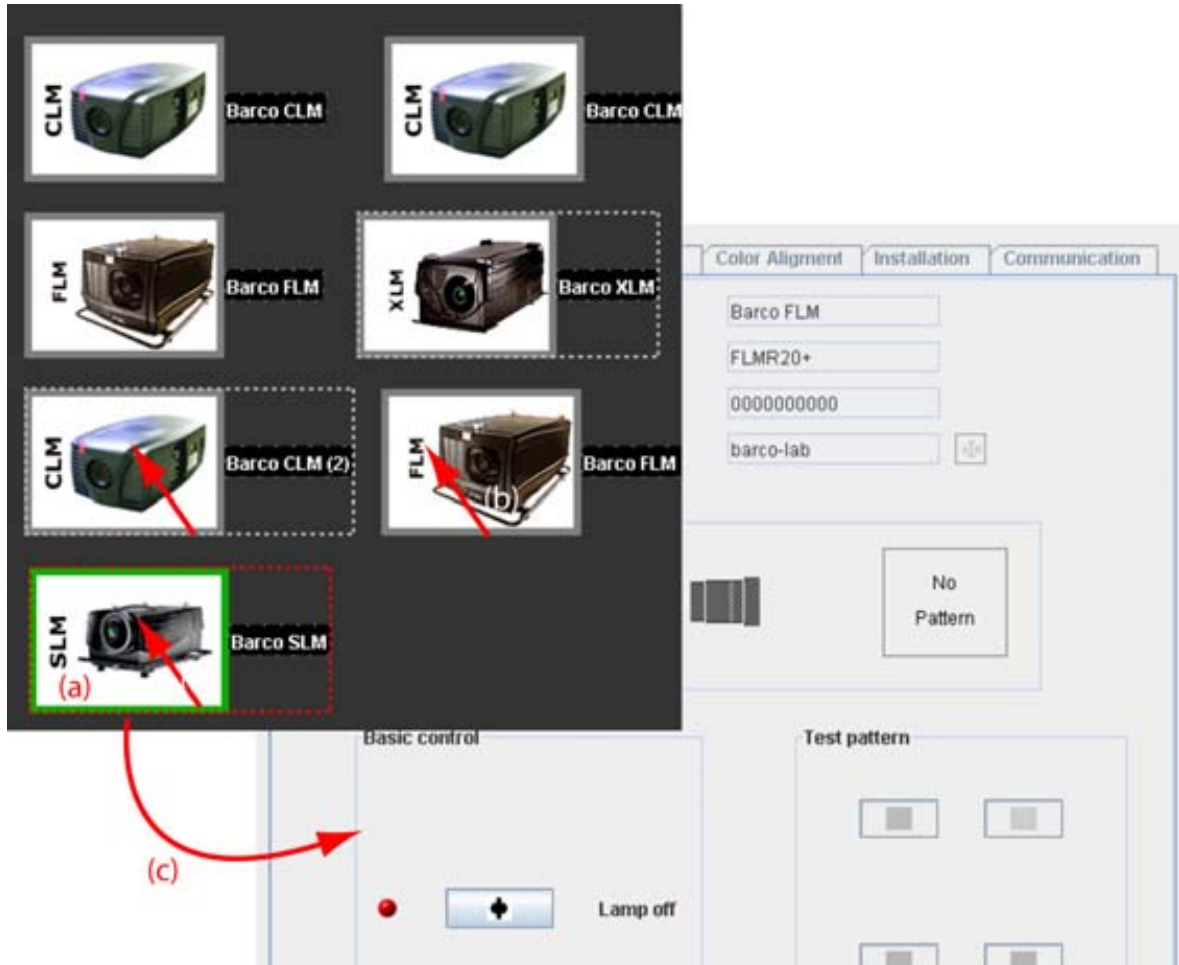
Image 5-28
Multi selection of projectors

# 6. CONFIGURATOR, GENERAL PROJECTOR SETTINGS

- Start up
- Control interface
- Basic controls, Lamp ON/OFF
- Basic controls, pause setting
- Basic control, Text ON/OFF
- Test pattern short cuts
- Advanced controls
- Maintenance

## 6.1 Start up

### How to startup

Click on the desired projector graph to display the projector properties. (image 6-1)

If the general settings are not open, click on the **General Settings** tab.

The general settings are displayed.



Image 6-1
Start up general settings

## 6.2  Control interface

### Overview



Image 6-2
Control interface

The following items can be consulted and are read only values:

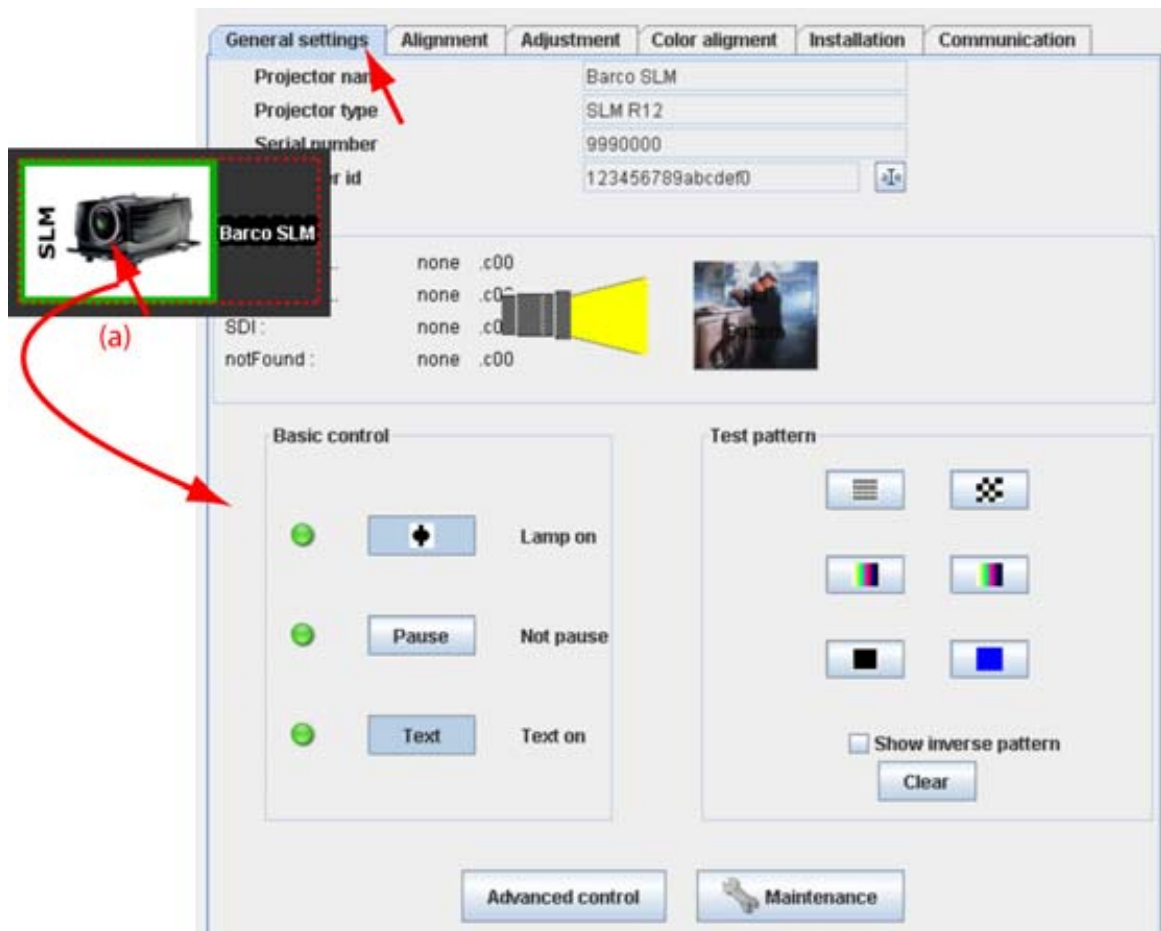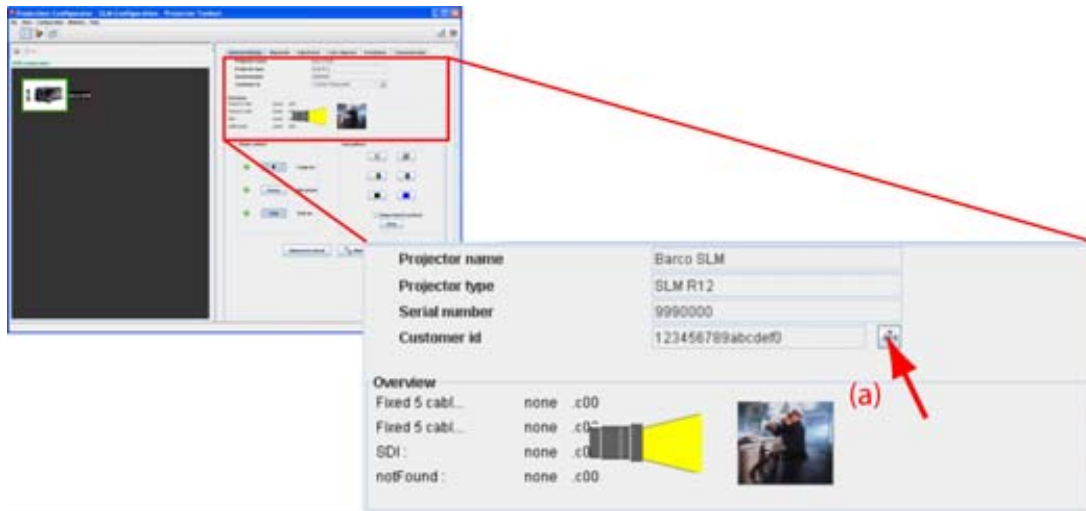- *Projector name*: name given to the projector during the creation.
- *Serial number*: serial number of the connected projector.
- *Projector overview*
  - Input files per input module
  - Lamp on or off: indicated by a light beam (yellow). Black means that the lamp is off.
  - Name of selected test pattern (with a preview if available) if one is selected.

The *Customer identifier* can be changed. Therefore, click on the edit icon (a) next to actual identifier.
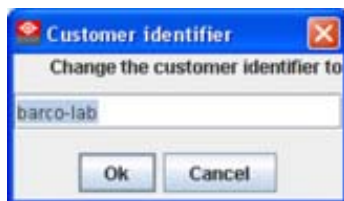


Image 6-3
Customer identifier window

The current name is selected. Enter a new name and click **OK**. The *Customer identifier* is changed.

## 6.3  Basic controls, Lamp ON/OFF

### What can be done?

The projector lamp can be switched ON or OFF using the toggle button in the basic controls.

The lamp status is indicated by the led color in front of the lamp toggle button and by the text indication right next to the button.

- red: lamp is off, text indication: Lamp off
- green: lamp is on, text indication: Lamp on
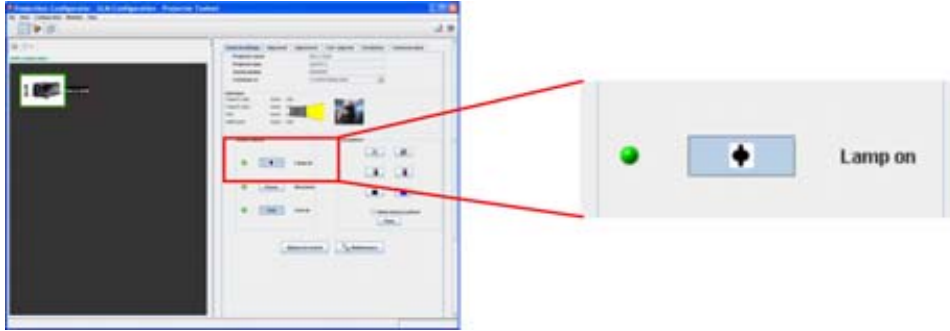
Image 6-4
Lamp switching

## Toggling the lamp

Press the **Lamp** button to toggle the lamp on or off.

When toggling the lamp from off to on, a Switching on window is display as long as the lamp is not fully on. (image 6-5)



Image 6-5
Switching lamp on

## 6.4 Basic controls, pause setting

### What can be done?

The image projection can be interrupted for a short time. The image disappears but full power is retained for immediate restarting. Shutter is closed when pause is activated.

The pause status is indicated by the led color in front of the pause button and by the text indication right next to the button.

- red: pause is activated, shutter is closed. Text indication: Paused
- green: pause is not activated, shutter is open. Text indication: Not paused



Image 6-6
Basic control, pause

### How to toggle

Press **Pause** button to toggle between *Paused* and *Not paused*.

## 6.5 Basic control, Text ON/OFF

### What can be done?

The on-screen text boxes can be switched OFF so that an adjustment during the operation of the projector is not visible on the screen. The adjustment indication remains visible on the local LCD display.

The text on/off status is indicated by the led color in front of the text button and by the text indication right next to the button.

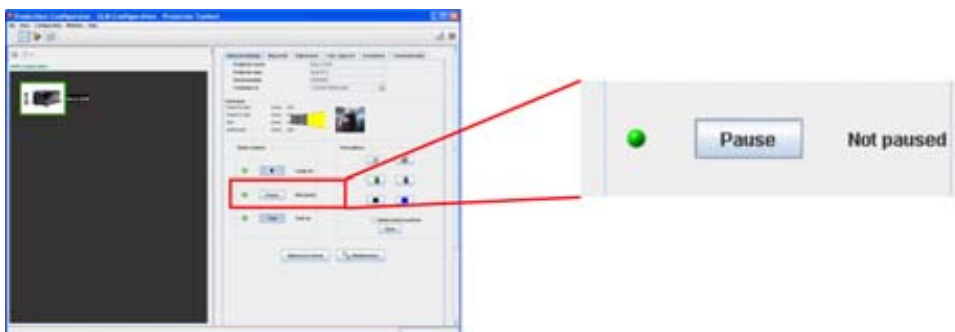- red: text is off, nu boxes visible on the screen. Text indication: Text off
- green: text is on, all text boxes are visible on the screen. Text indication: Text on
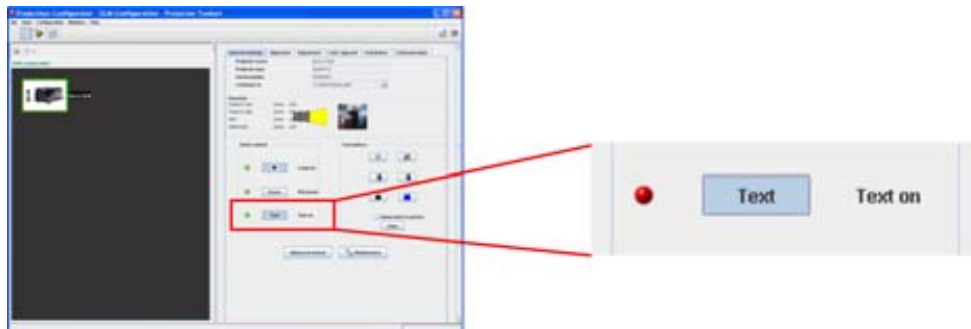


Image 6-7
Basic control, text on/off

### How to toggle

Press **Text** button to toggle between *Text on* and *Text off*.

## 6.6 Test pattern short cuts

### What can be done?

A predefined pattern can be set immediately on the projection screen and cleared again. The test pattern can be inversed

### To set a pattern

Click on one of the predefined buttons. (image 6-8)

> The selected pattern is displayed by the projector when the lamp is on and the shutter is open (not paused).
> The following patterns are available:
> - Checkerboard
> - Hatch
> - Color bars
> - Multiburst
> - Outline
> - Overlay

To clear a projected pattern, click **Clear**.

To inverse a test pattern, check the check box in front of *Show inverse pattern*.
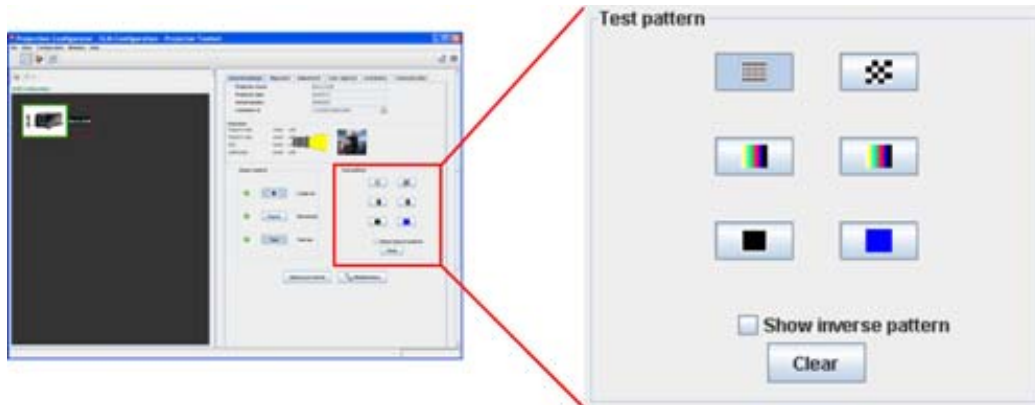
Image 6-8
Test pattern selection

# 6.7 Advanced controls

- Source switching
- Minimum delay

## 6.7.1 Source switching

### Switching from one source to another

To minimize undesired effects when switching from one source to another one can use the seamless switching mode, using the fade effect.



Image 6-9
Example of fade effect

### How to switch

Click on **Advanced control** (a). (image 6-10)

The *Advanced control* dialog box opens (b)

Click on the drop down box next to *Source switching effect* and select the desired effect (c)

Click **Close** to close the window (d)

Image 6-10
Source switching

### 6.7.2 Minimum delay

#### Purpose

In normal mode, the processing (scaling and de-interlacing) in DLP projectors introduces a few frames delay (from input to screen). Setting the option *Minimum Delay* to "ON" disables all scaling and de-interlacing in the processing and reduces frame delay of the projector (from input to scr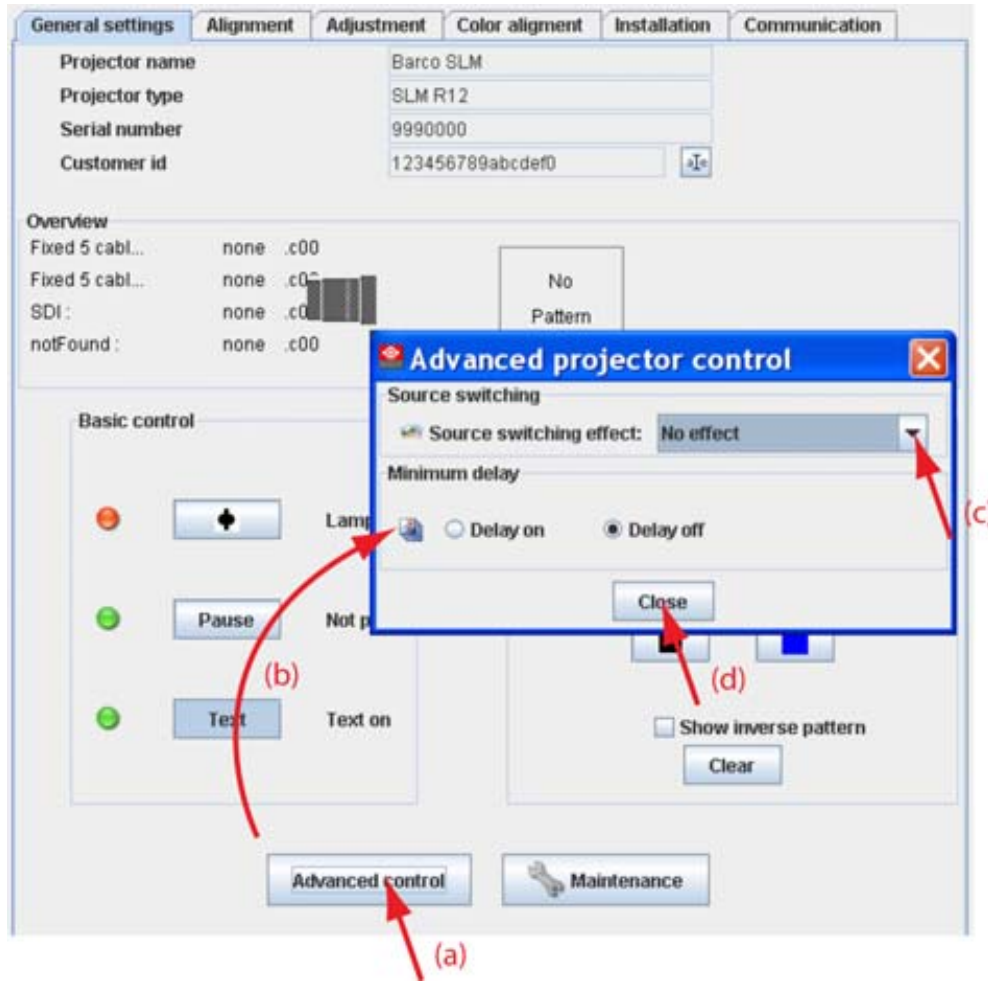een) to ONE frame, caused by the formatter board (DLP technology restriction). The intended use of this option is to apply native and progressive data to the projector and displaying it with minimum delay, using the full resolution of the projector. Other formats will be displayed either unscaled and/or interlaced.

This feature can be used if additional delay in the projector is not acceptable. For instance if a projector is showing the DVI loop out of another DLP or if an external scaler/de-interlacer does the processing.

#### How to toggle the delay

Click on **Advanced control** (a). (image 6-11)

   The *Advanced control* dialog box opens (b)

To set up the Minimum delay setting, check the radio button of your choice (c.

   On      frame delay reduced with one frame.
   Off     no reduction

Click **Close** (d)

Image 6-11
Minimum delay

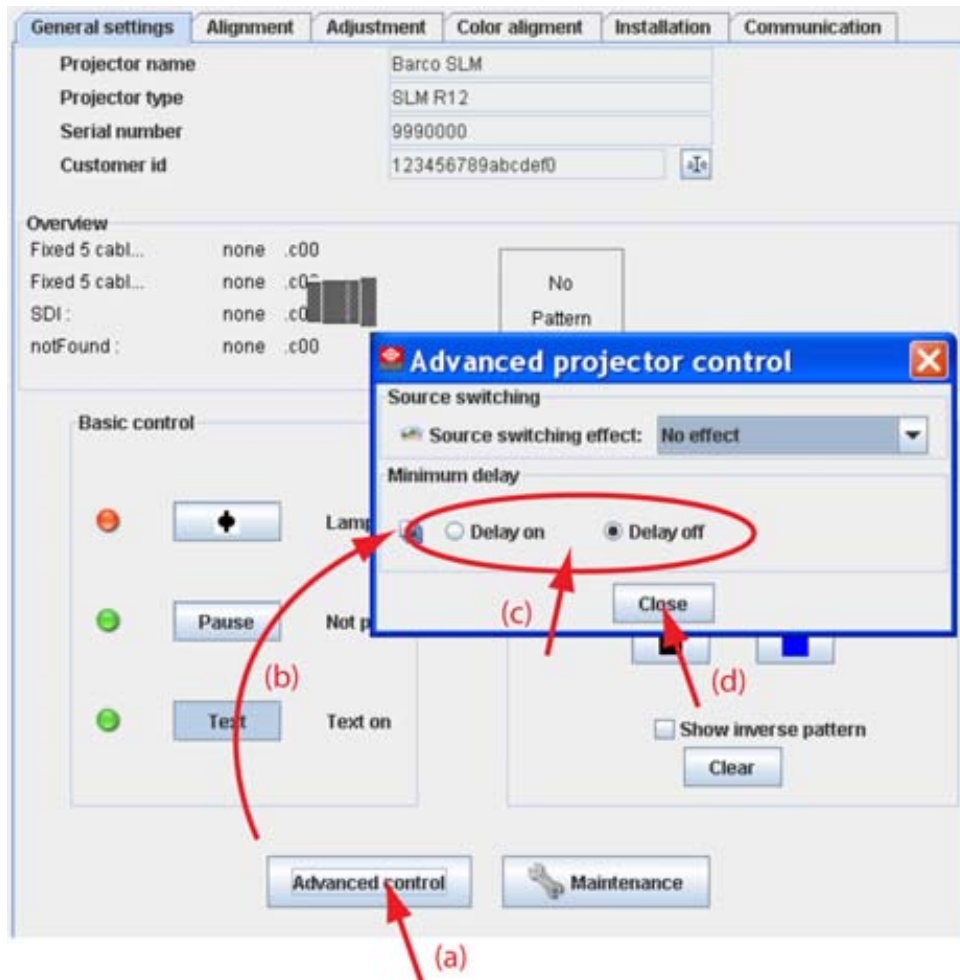# 6.8 Maintenance

• Restore factory defaults

## 6.8.1 Restore factory defaults

### What can be done?

All settings of the projector are set to the original factory settings. All user settings are erased with this operation.

### How to reset

Click on **Maintenance** (a). (image 6-12)

The General Maintenance dialog box is displayed (b).

Click **Reset now** (c).

Click **Close** (d).
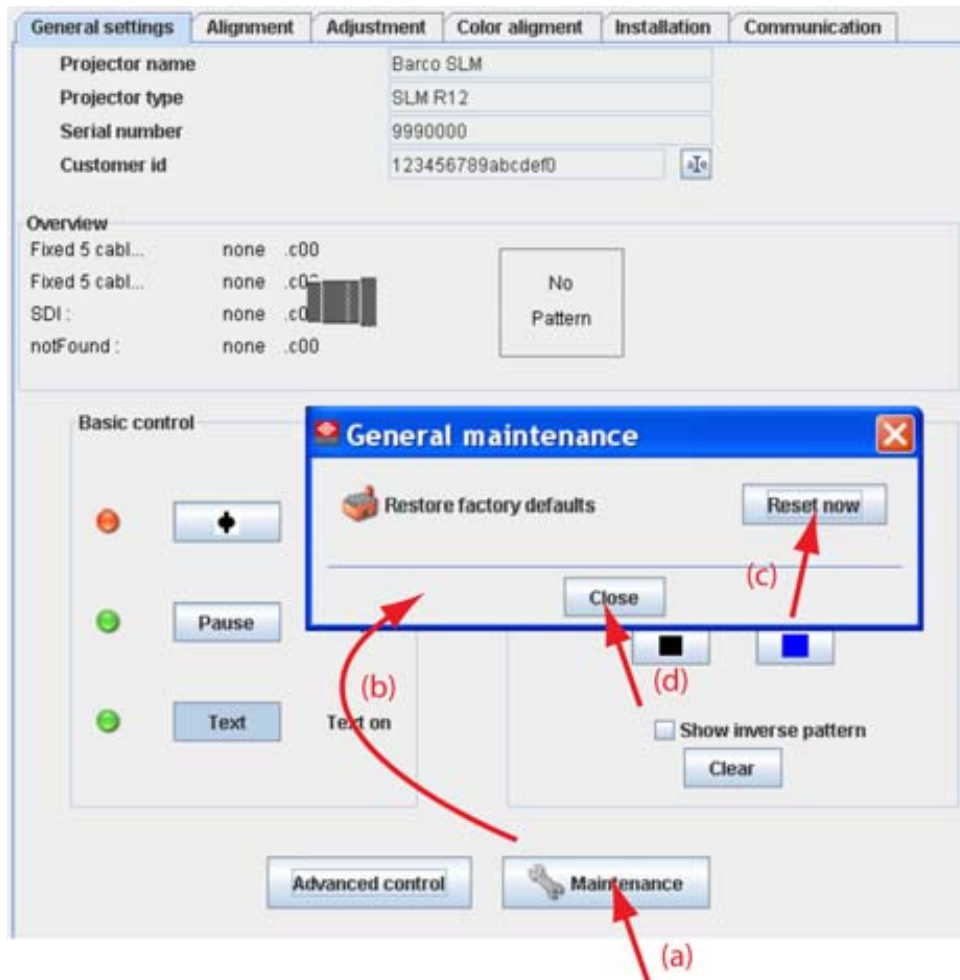
Image 6-12

# 7. CONFIGURATOR, PROJECTOR ALIGNMENT SETTINGS

- Lens control
- Alignment pattern
- Gamma adjustment
- Horizontal keystone correction
- Blanking adjustment
- ScenergiX

## 7.1 Lens control

- Lens shift
- Lens zoom
- Lens focus

### 7.1.1 Lens shift

#### What can be done?

When the lenses are motorized, it is possible to adjust these lenses via the Projector Toolset. The images can be shifted horizontally and vertically.
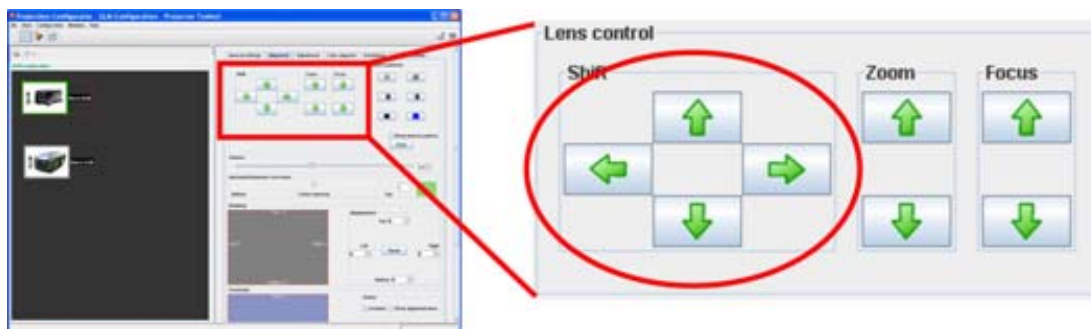


Image 7-1
Lens shift

#### How to shift the image

To shift the image horizontally, click on the left or right arrow button in the shift pane.

To shift the image vertically, click on the up or down arrow button in the shift pane.

Click on the shift buttons until the correct image position is obtained.

### 7.1.2 Lens zoom

#### What can be done?

When the lenses are motorized, it is possible to zoom these lenses via the Projector Toolset.
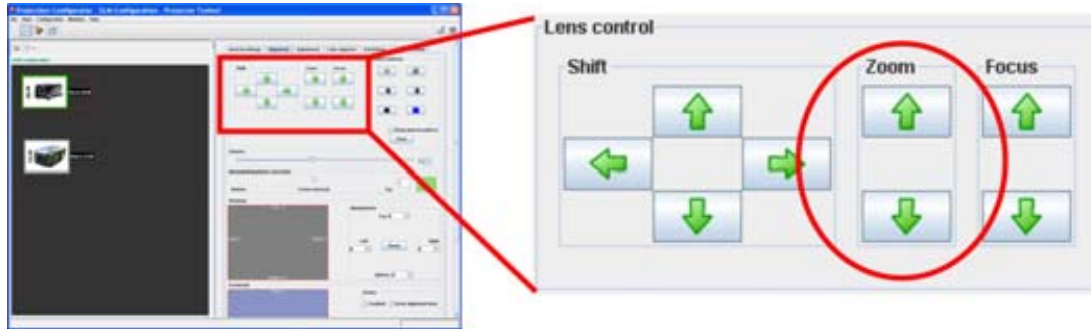
Image 7-2
Lens zoom

### How to zoom

Click on the up or down arrow button in the zoom pane.

## 7.1.3 Lens focus

### What can be done?

When the lenses are motorized, it is possible to focus these lenses via the Projector Toolset.
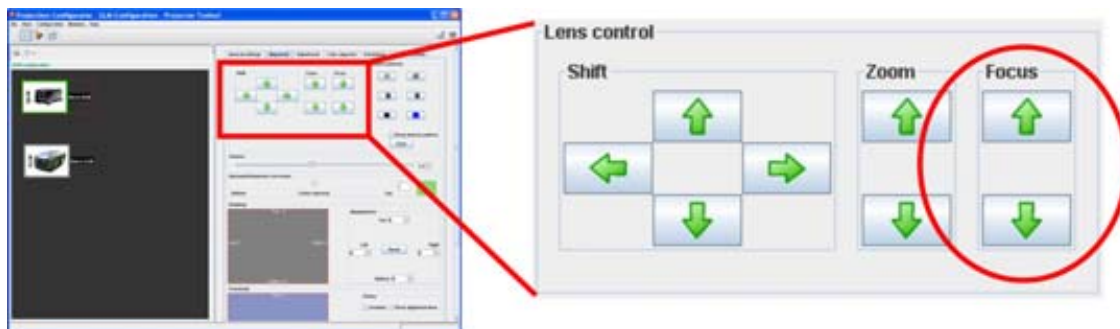


Image 7-3
Lens focus

### How to focus

Click on the up or down arrow button in the focus pane.

Click until the correct focus is obtained.

# 7.2 Alignment pattern

### What can be done?

A predefined pattern can be set immediately on the projection screen and cleared again. This can be done via short cuts.

### To select a pattern

Click on one of the predefined buttons. (image 7-4)

The selected pattern is displayed by the projector when the lamp is on and the shutter is open (not paused).

The following patterns are available:

- Hatch
- Checkerboard
- Color bars
- Multiburst
- Outline
- Overlay

To clear the projected pattern, click **Clear**.

To inverse the selected pattern, check the check box in front of *Show inverse pattern*.
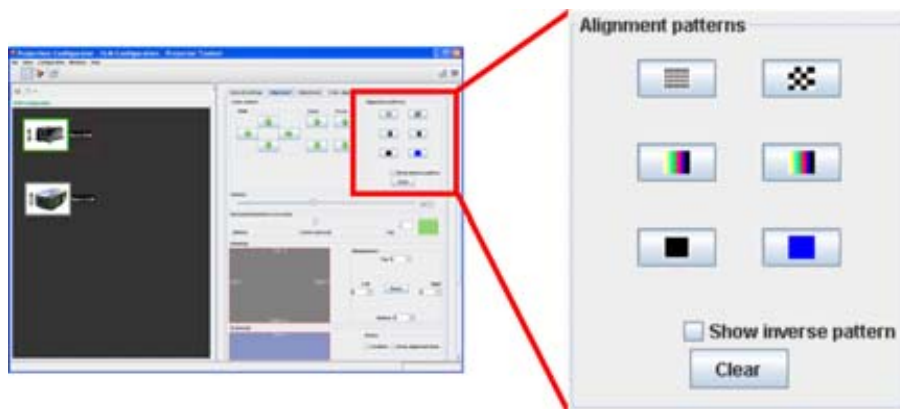


Image 7-4
Alignment patterns

## 7.3   Gamma adjustment

### About Gamma

Gamma is an image quality enhancement function that offers a richer image by brightening the already darker portions of the image without altering the brightness of the brighter portions (contrast feeling enhanced).
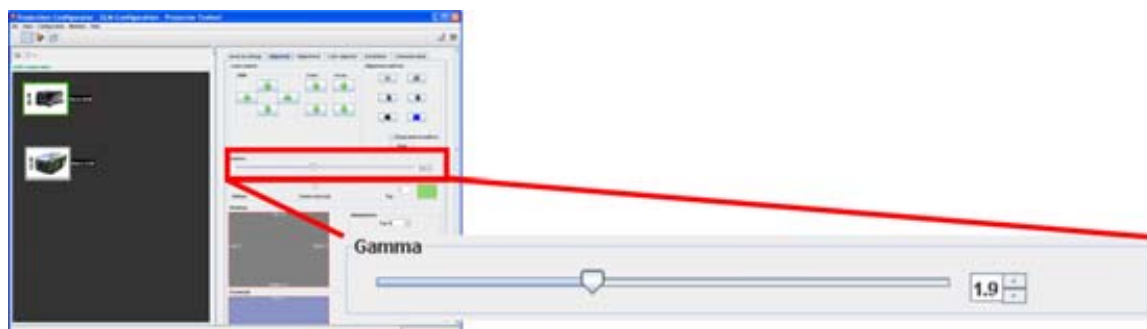


Image 7-5
Gamma adjustment

### Adjusting via dragging

Click on the slider bar of the gamma adjustment and hold down the mouse button.

Move the slider until the desired value is reached.

The value in the input field of the spin box will change accordingly.

### Adjusting via the up down controls

Click on the up down control of the spin box of the gamma adjustment until the desired value is reached.

The value in the input field change accordingly.

### Adjusting via the input field

Click inside the input field of the spin box of the gamma adjustment.

Select the actual value and enter a new value with the keyboard.

## 7.4 Horizontal keystone correction

### What can be done ?

The side keystone (horizontal keystone) correction is used to align the image if the projector is mounted at a non standard projection angle.
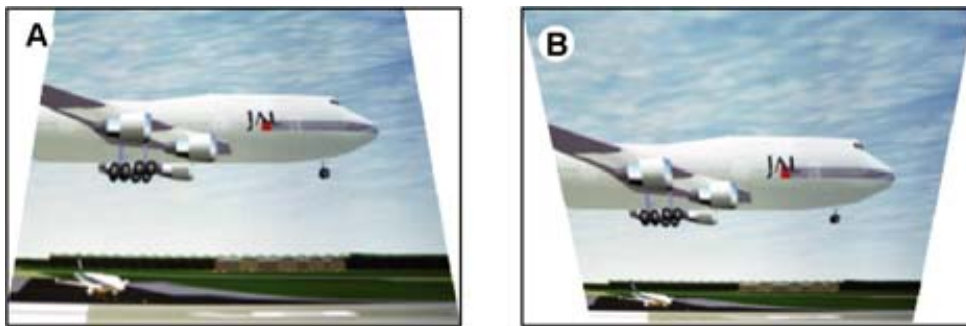


Image 7-6
Side keystone

A   Keystone adjustment with positive values
B   Keystone adjustment with negative values

### How to adjust

Click on the slider, hold down the mouse button and drag the slider to the left (bottom correction) or the right (top correction) until the desired keystone correction is obtained
Or,
click in the input field next to the slider and enter the desired value with the keyboard.

Value can change between - 255 and + 255. A negative value is a correction at the bottom side of the image. A positive value is a correction at the top side of the image. (image 7-7)
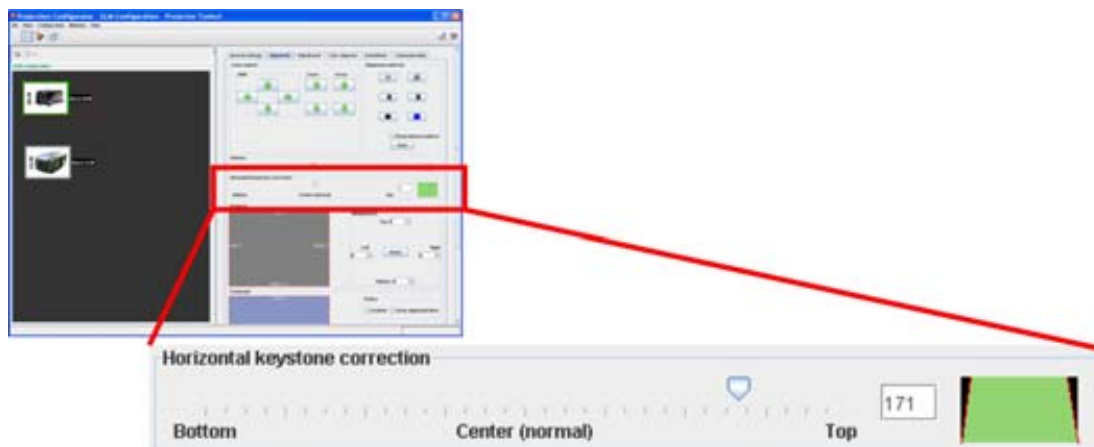


Image 7-7
Keystone correction

> **Double click on the Horizontal keystone correction slider bar to reset the keystone (value = 0).**

## 7.5 Blanking adjustment

### What can be done ?

Blanking adjustments affect only the edges of the projected image and are used to frame the projected image on to the screen and to hide or black out unwanted information (or noise). A '0' on the bar scale indicates no blanking.

### Which blanking adjustments are available ?

•    top blanking

•    bottom blanking

•    left blanking

•    right blanking
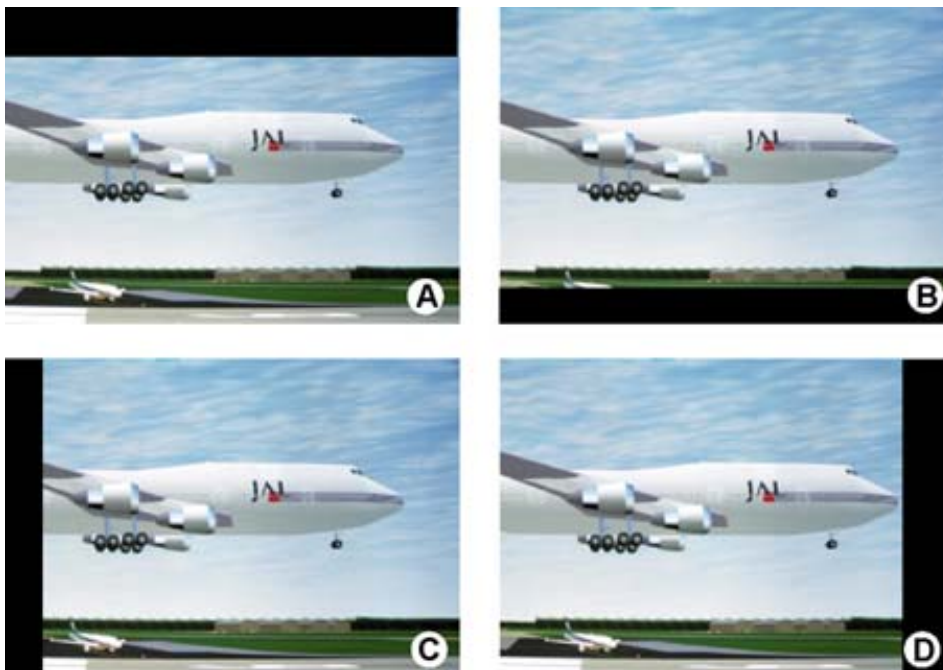


Image 7-8
Blanking

A   Top blanking
B   Bottom blanking
C   Left blanking
D   Right blanking

### How to adjust a side blanking

Click on the up down control of the spin box of the desired blanking until the chosen blanking is correctly set up.
Or,
click in the input field of the spin box of the desired blanking and enter the desired blanking value. (image 7-9)

The preview shows the setup blanking for each side.
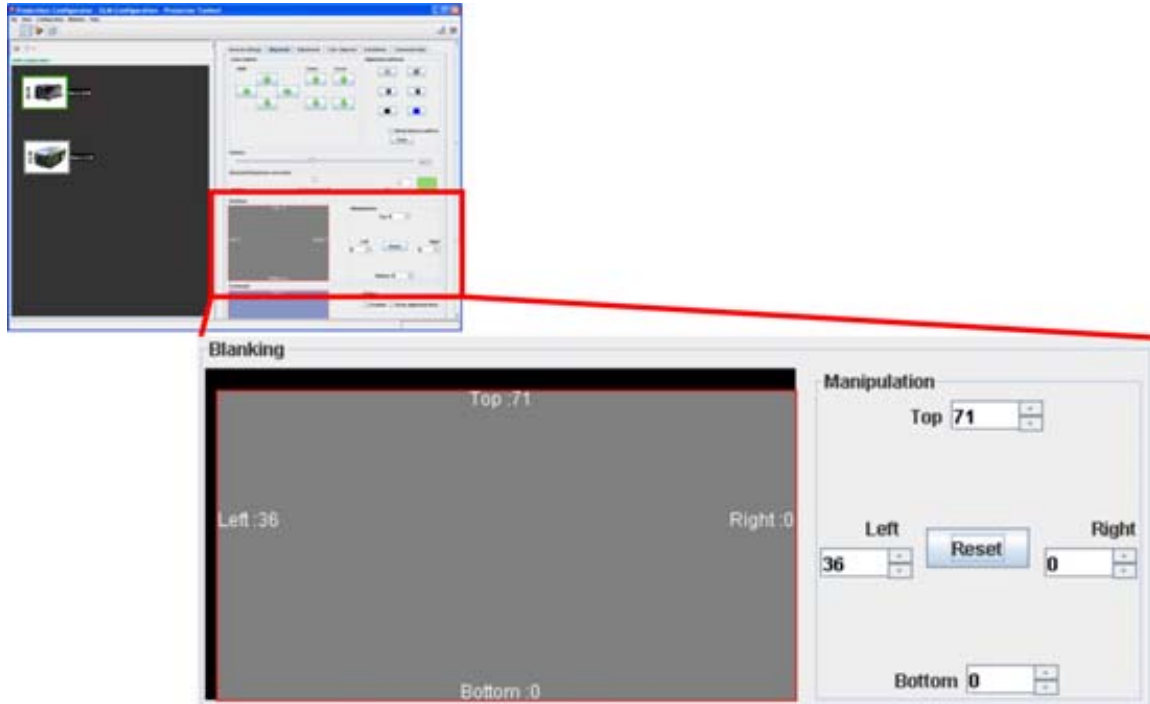
Image 7-9
Blanking adjustment

---

**Use Reset to set all blanking settings to zero.**

---

# 7.6    ScenergiX

## 7.6.1    Introduction

### Why ScenergiX ?

When working in a multichannel setup the Projector Toolset and its Soft Edge possibilities enable an image blending that gives the appearance of a single view, thus achieving realistic immersion for the majority of wide screen applications.



Image 7-10
Why Soft Edge?

### What is the Basic Principal of ScenergiX ?

The principle of edge blending is achieved by linear modulation of the light output in the overlap zone so that the light output in that zone equals the light output of the rest of the image.

Adjustable overlapping area

Light output per image

100%

50%

image 1

image 2

Total composite light output

100%

50%
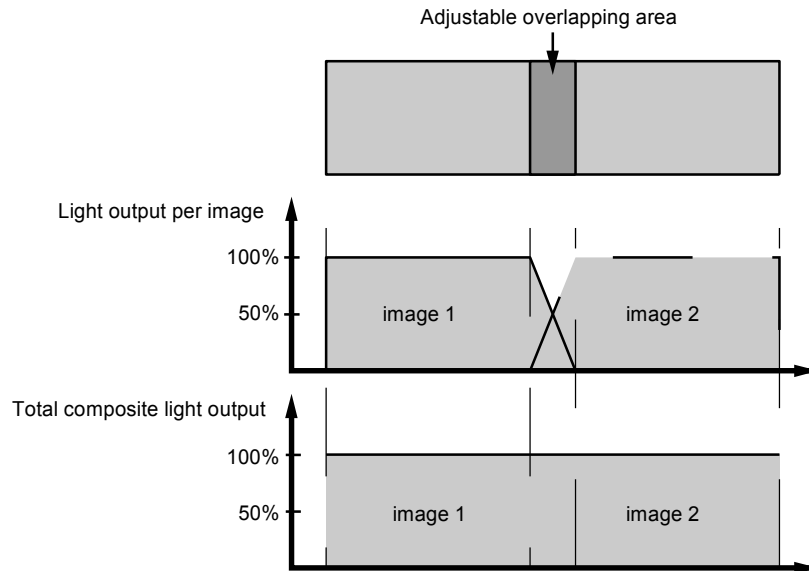
image 1

image 2

Image 7-11
ScenergiX Basic Principle

### 7.6.2   Preparations

#### ScenergiX Preparations

To ensure proper ScenergiX adjustment, be sure that the following adjustments are done perfectly on all projectors:

- Convergence
- Geometry
- Color Matching (Color Temperature, Color Standard, Input Balance, Gamma)

### 7.6.3   ScenergiX activation

#### How to enable or disable ScenergiX

To enable ScenergiX, check the check box in front of enable.
To disable ScenergiX, uncheck the check box in front of enable. (image 7-12)

When enabled, *Show alignment lines* becomes available.

To display alignment lines on the screen, check the check box in front of *Show alignment lines*.

Image 7-12
Enable - disable ScenergiX

## 7.6.4 ScenergiX overlap zone (horizontal ScenergiX)

### Definitions



Image 7-13
ScenergiX set up

Overlap : number of pixels that overlap

Horizontal resolution of 1 projector : 1024 for Graphics versions, 1280 for Reality versions, 1400 for SXGA projectors.

Total horizontal screen resolution : [(horizontal resolution of 1 projector) x 2] minus overlap.

Horizontal Resolution source : number of active pixels of the source.

## Adjustment of Active pixels of the first projector

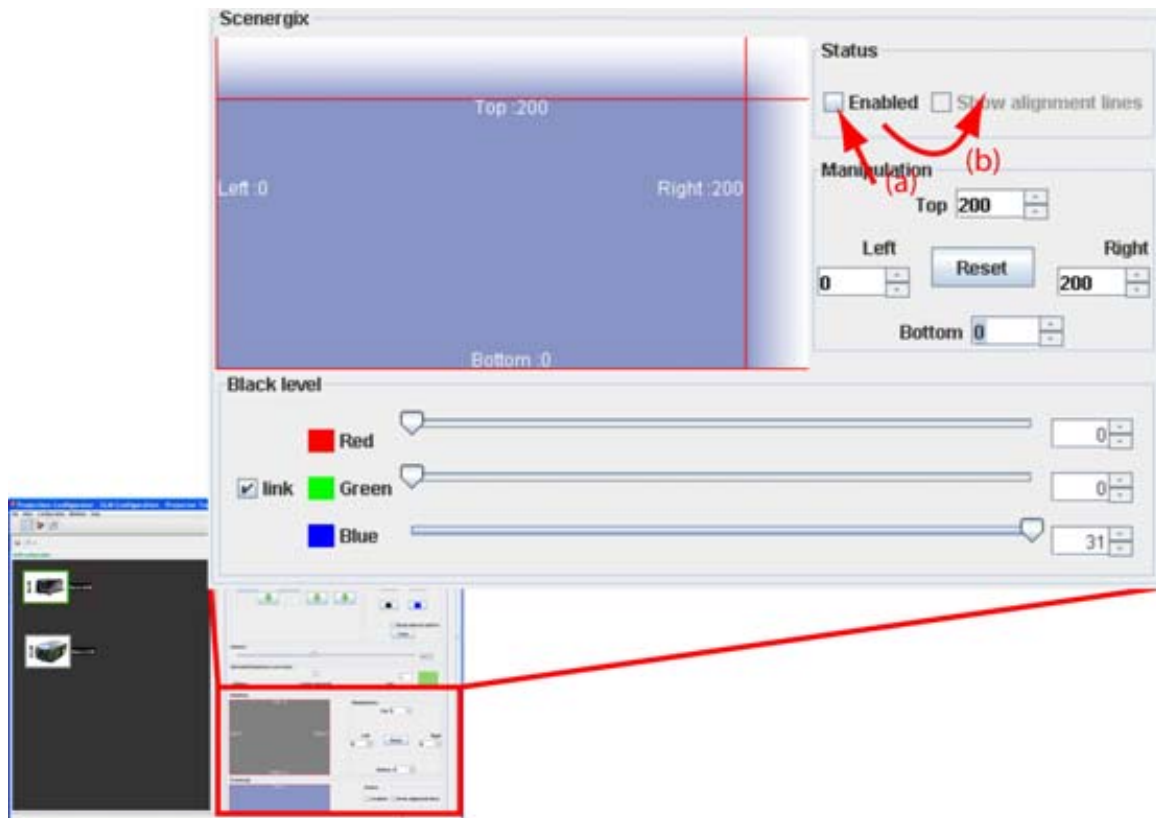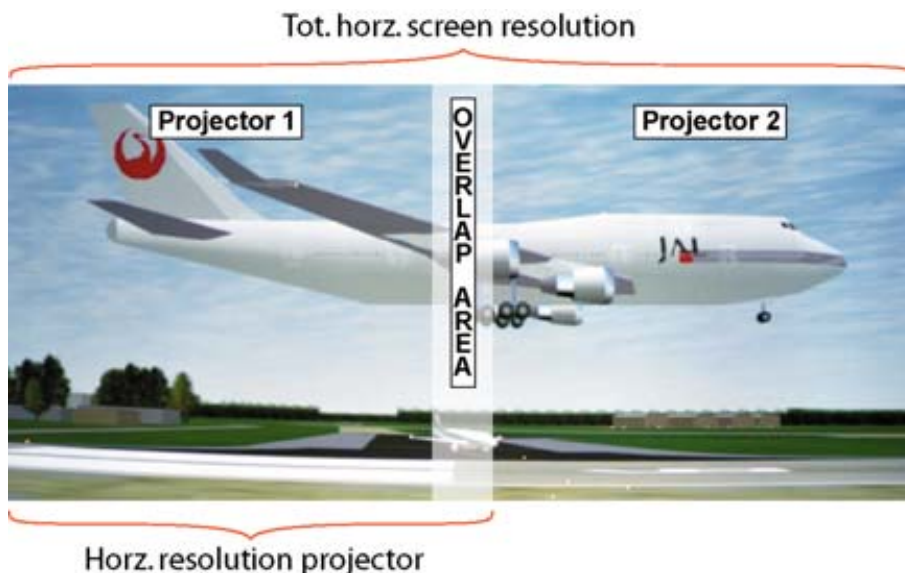Go to **Adjustment** tab –> *Input settings* pane –> **Adjust** menu of first projector.

Enter value for horizontal active as follows :
Horz. active= [(Horz. resolution of 1 projector)/(Total horz. screen resolution)] x (horz. resolution source)

Horizontal start remains the same.

## Adjustment of Active pixels (Pact) of second projector

Go to **Adjustment** tab –> *Input settings* pane –> **Adjust** menu of second projector.

Enter value for horizontal active as follows :
Horz. active= [(Horz. resolution of 1 projector)/(Total horz. screen resolution)] x (horz. resolution source)

Horizontal start = original start + [(Horz. resolution source) minus (newly calculated Horz. active)]

## Example

Horizontal resolution source : 1600 pixels

horizontal resolution projector 1 & 2 : 1024 pixels

Overlap : 100 pixels

Total horizontal screen size in pixels : 1948 pixels

Horz; active projector 1 = [(1024 / 1948)] x 1600 = 841 pixels

Horz. active projector 2 = [(1024 / 1948)] x 1600 = 841 pixels

Horz. start projector 2 = Horz. start projector 1 + (1600 – 841)

## 7.6.5    ScenergiX overlap zone (vertical ScenergiX)
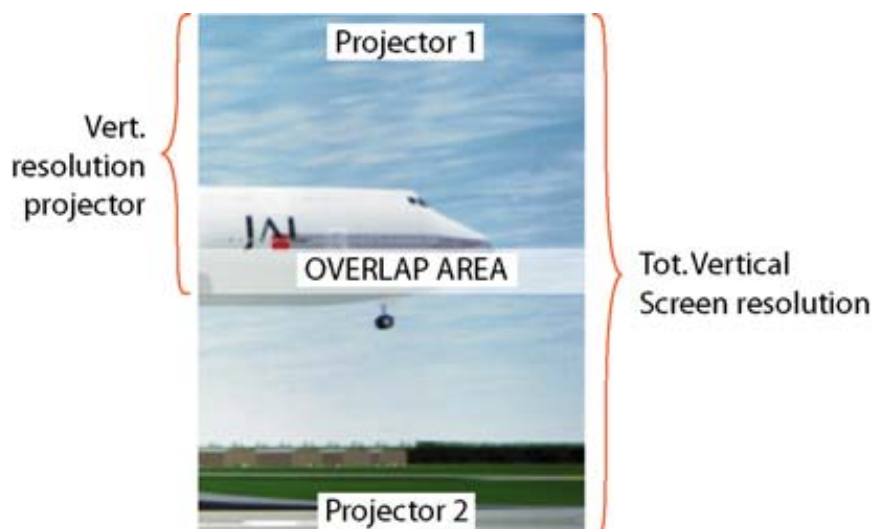
### Definitions



Image 7-14
Scenergix overlap zone vertical

Overlap : number of pixels that overlap

Vertical resolution of 1 projector : 768 for Graphics versions, 1024 for Reality versions, 1050 for SXGA projectors.

Total vertical screen resolution : [(Vertical resolution of 1 projector) x 2] minus (overlap)

Vertical Resolution source : number of active lines of the source

### Adjustment of Active lines (Lact) of the first projector

Go to **Adjustment** tab –> *Input settings* pane –> **Adjust** menu of first projector.

Enter value for vertical active (= Lact) as follows :
Lact = [(vert.. resolution of 1 projector)/(Total Vert. screen resolution)] x (Vert. resolution source)

Vertical start (= Lstart) remains the same.

### Adjustment of Active lines (Lact) of second projector

Go to **Adjustment** tab –> *Input settings* pane –> **Adjust** menu of second projector.

Enter value for vertical active (= Lact) as follows :
Lact = [(vert.. resolution of 1 projector)/(Total Vert. screen resolution)] x (Vert. resolution source)

Vertical start (= Lstart) = original start + [(Vert. resolution source) minus (newly calculated Lact)]

### Example

Vertical resolution source : 1200 lines

Vertical resolution projector 1 & 2: 768 lines

Overlap : 50 lines

Total vertical screen size : 1486 lines

Lact projector 1 = (768 / 1486) x 1200 = 620 lines

Lact projector 2 = (768 / 1486/) x 1200 = 620 lines

Lstart projector 2 = Lstart projector 1 + (1200 – 620)

## 7.6.6    ScenergiX size adjustment (white level adjustment)

### What can be done with the manipulations pane?

The Top, bottom, left or right item set the blending zone.
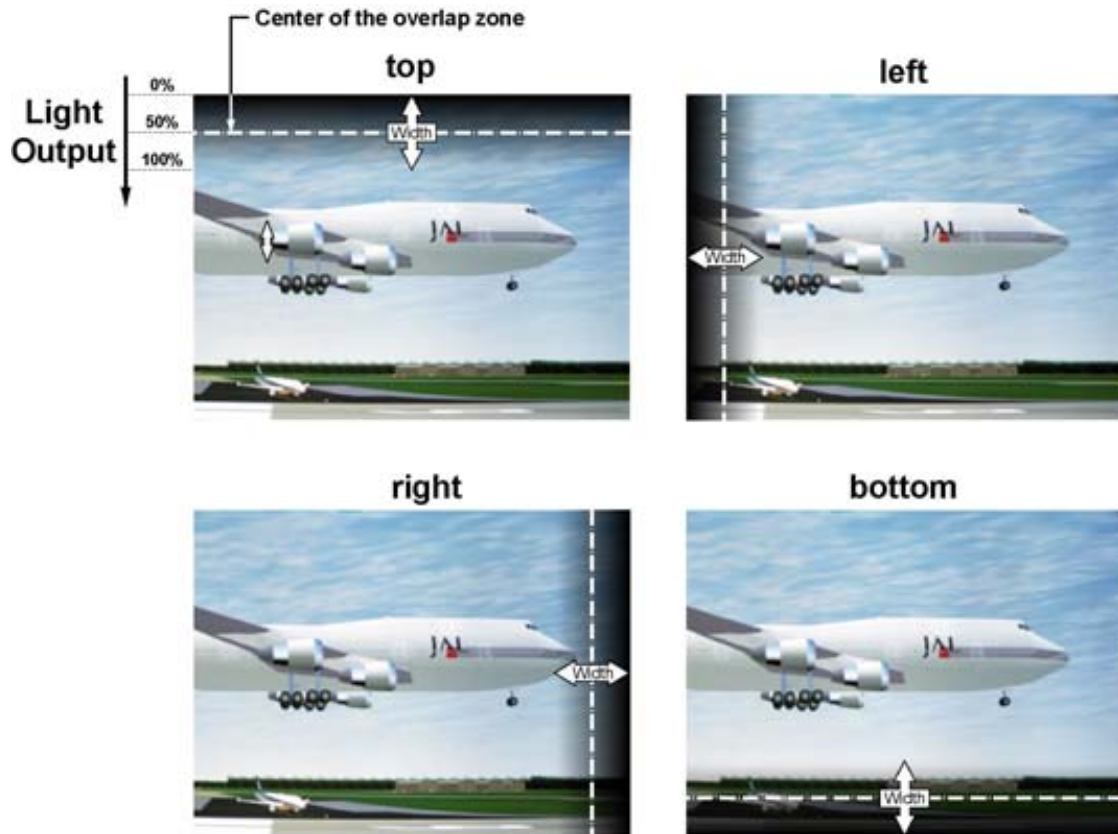
Image 7-15
Width selection

## How to set a blending zone

Click on the up down control of the spin box of the selected blending zone and adjust until the desired
zone is reached (image 7-16)
Or,
click in the input field of the spin box of the selected blending zone and enter the desired value.

The result is indicated in the ScenergiX preview pane. The corresponding line will move in the selected
direction.

When *Show alignment lines* is checked, the zone indication is shown on the screen. The corresponding
zone will move in the direction of the adjustment.
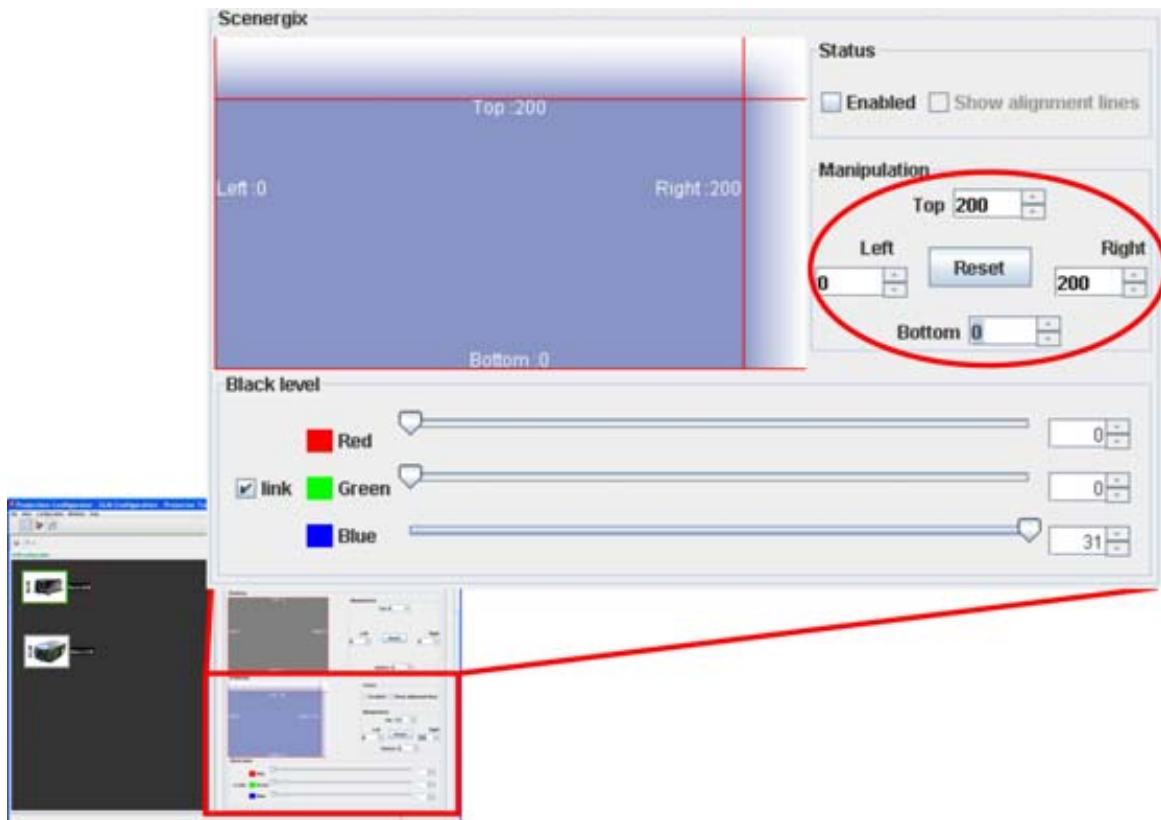
Image 7-16
ScenergiX size adjustment

> **Use Reset to set all overlap zones back to zero (0).**

## 7.6.7 Adjusting the black level of the images

### Why black level adjustment

For dark images, the overlap zone will be brighter then the rest of the images. Typically for DLP projectors, next to the overlap zone, a brighter area is recognized. This area is known as a DLP leakage area. This area must also be exclude for the black level adjustment. Therefore we can rise the black level of the remaining image (excluding the overlap zone and the DLP leakage area).

First, the width of the leakage area must be set. The white cursor line indicates the border of the overlap area. The green cursor line indicates the current installed DLP leakage area border and starts at the position of the white cursor line (no width installed). This green line can be moved to the border of the DLP leakage area with the cursor keys.
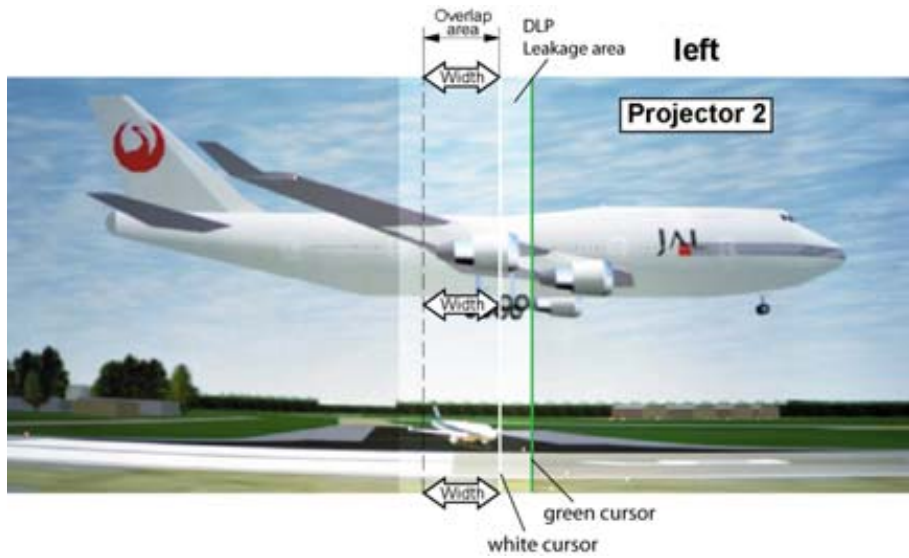
Image 7-17
DLP Leakage area set up

## How to adjust the black level

Click on the slider an move this slider to the desired position. (image 7-18)
Or,
click on the up down control of the spin box of the selected color until the desired value is reached.
Or,
click in the input field of the spin box of the selected color and enter the desired value.

Adjust the black level of area A until the black level of area A, B and C are equal. (image 7-19)
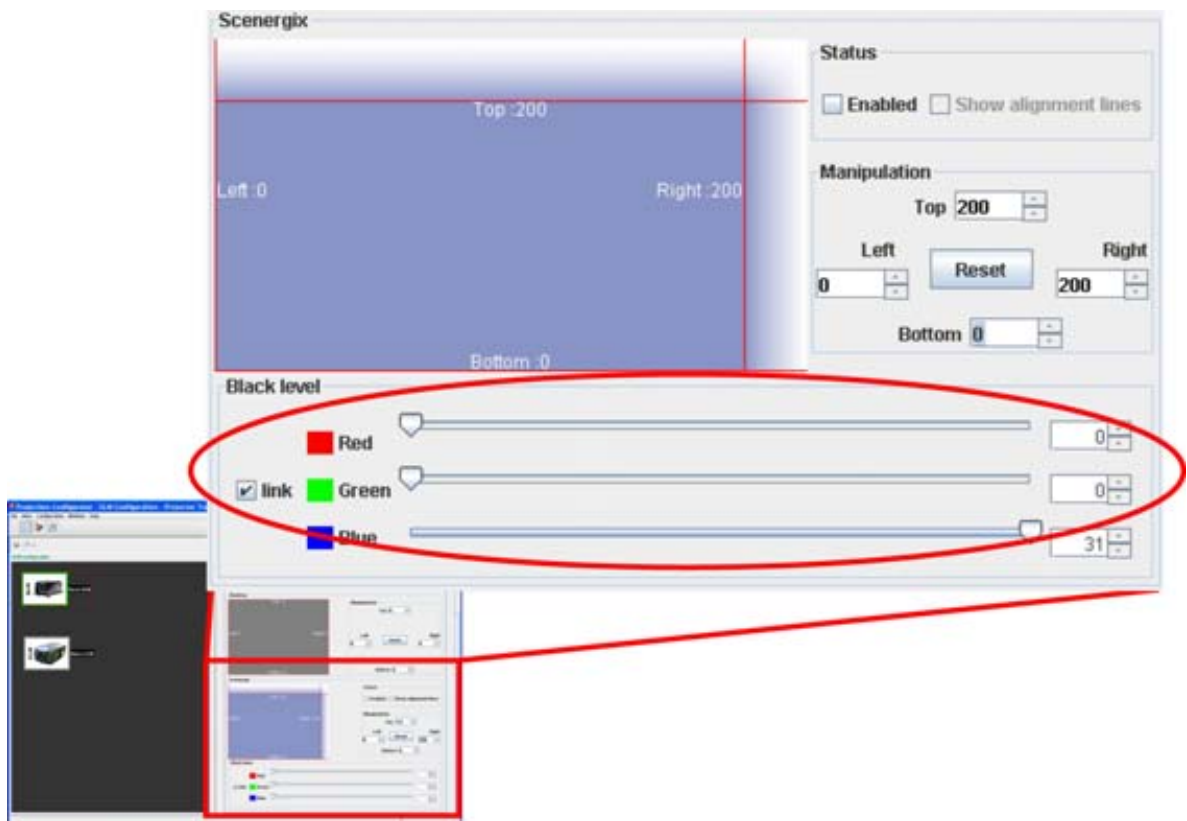


Image 7-18
Black level adjustment
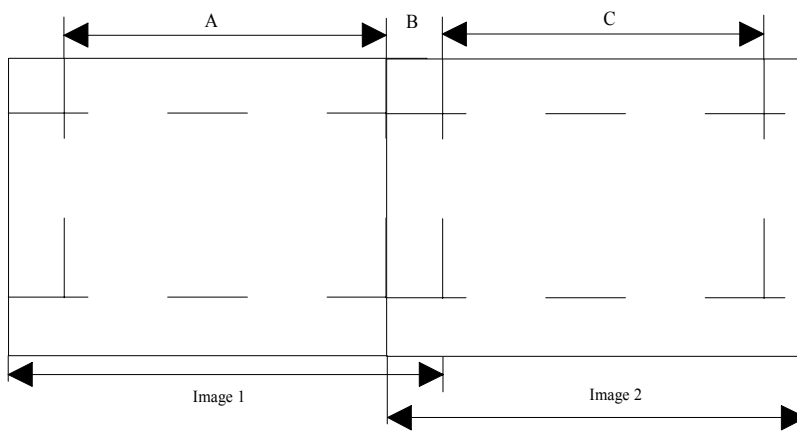
Image 7-19
ScenergiX, black level adjustment

**When Linked is checked, R, G and B are adjusted at the same time.**

# 8. CONFIGURATOR, PROJECTOR ADJUSTMENT SETTINGS

- Window and source selection
- Configuring an input slot
- Input files
- Image settings
- Layout settings

## 8.1 Window and source selection

### What can be done?

The main window is selected by default and an input can be associated with that main window.

### Slot - input selection

In the *Selection - Window - Slot - Input* pane, click on the combo next to the window and select the desired input slot. (image 8-1)
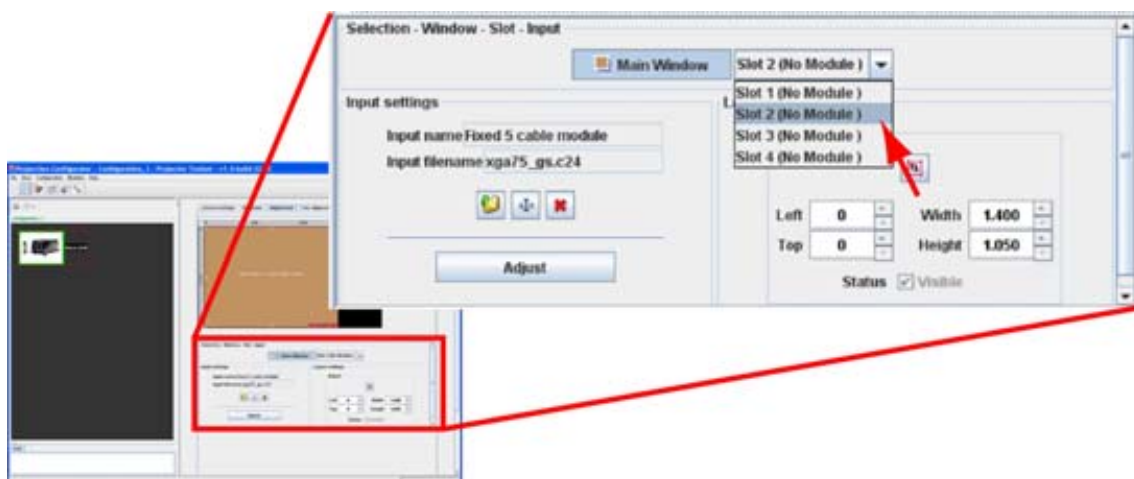


Image 8-1
Slot selection

## 8.2 Configuring an input slot

### What should be done?

Some input modules can accept different sources. The projector must know which type of source is connected to the input.

### How to configure

Click on **Adjust**. (image 8-2)

The *Input* dialog box opens.

Click on **Settings** and select *Input mode*. (image 8-3)

The *Input mode* dialog box opens with the current active setting filled out.

Click on the combo box next to *Input mode* and select the correct setting.

Click **Close** to return.
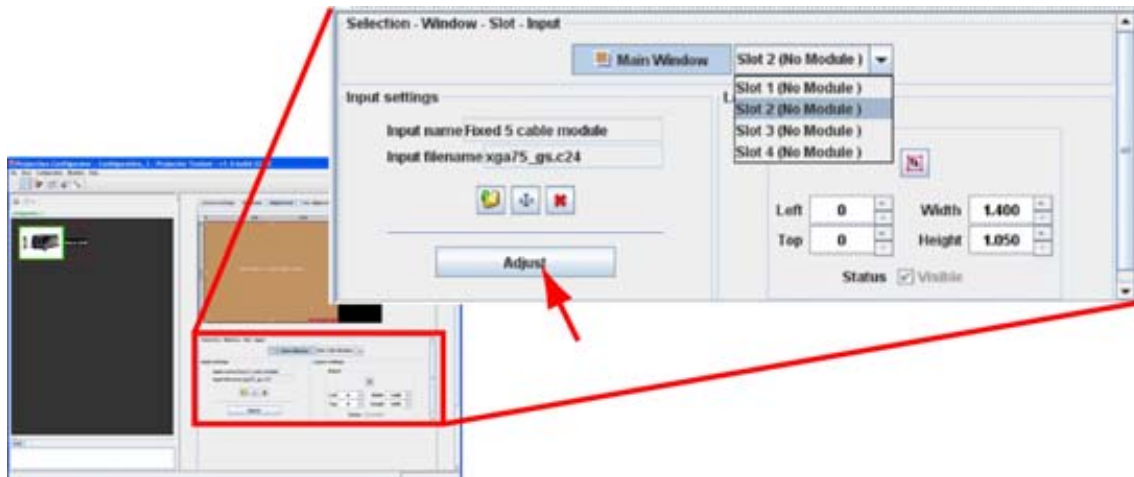


Image 8-2
Open the adjustment mode
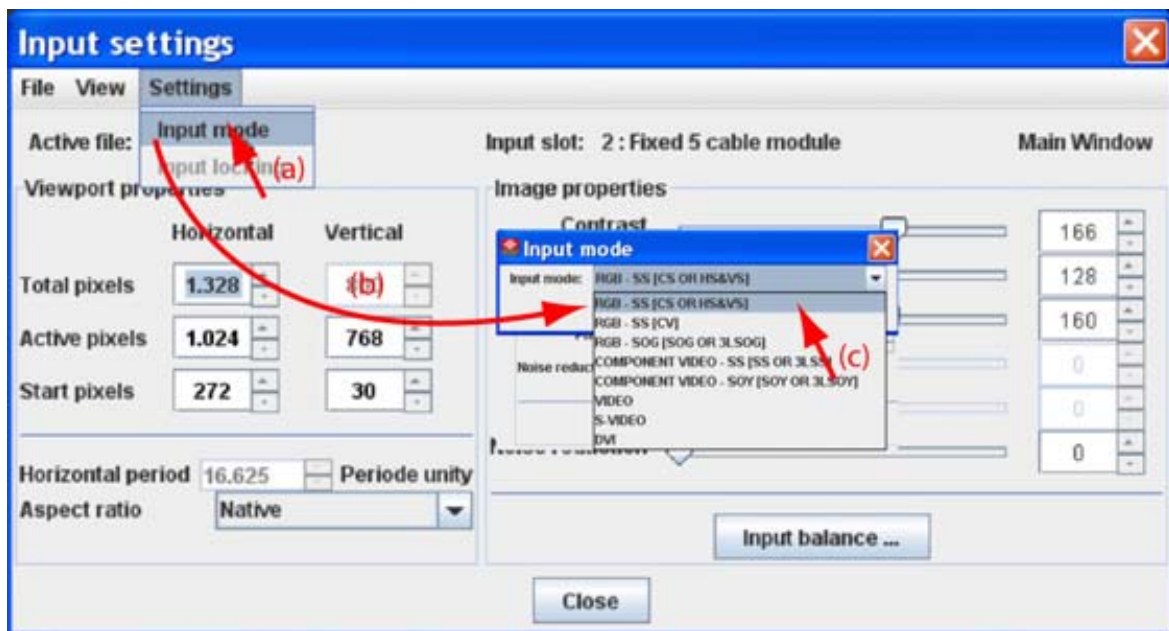


Image 8-3
Input mode selection

### Possible results

| Input module | Indication | Description |
| --- | --- | --- |
| 5 cable | RGB_SS (CV or HS&VS) | RGB analog signals, separate sync is composite sync or horizontal and vertical sync. |
| | RGB_SS (CV) | RGB analog signals, separate sync is composite video. |
| | RGB_SOG (SOG or 3LSOG) | RGB analog signals, sync on green is composite sync or composite tri-level sync. |
| | Component video_SS (SS or 3LSS) | separate sync is composite sync or composite tri-level sync. |

| Input module | Indication | Description |
|---|---|---|
| | Component video_SOY (SOY or 3LSOY) | component video with composite sync on Y or composite tri-level sync on Y. |
| | Video | Composite video |
| | S-Video | Component video |
| | DVI | |

# 8.3 Input files

- Introduction
- Loading a fitting input file
- Load a file from all files
- Edit Input settings
- Save changes on an input file
- Rename the current input file
- Deleting an input file
- Aspect ratio for selected input
- Input balance

## 8.3.1 Introduction

### About files

Before a new source can be used, a correct file has to installed. The projector's memory contains a list of files corresponding to the most used sources. When the source corresponds with one of these files, the file can be loaded and saved for future use. When there is a little difference, the file can also be loaded and then edited until the source specs are reached.

### Types of source files

When opening the list of source files, you will recognize 2 types of source files:
- system source files (default available in the projector's memory)
- custom source files

The custom source files with the same name of the system source files are indicated with a index number between brackets.

## 8.3.2 Loading a fitting input file

### Load via Load icon

Select first a window.

Click on Select file icon (a). (image 8-4)

  The Load (fit) dialog box opens (b).

  Only the best fitting files are displayed. Files with a digit between brackets are custom source files. All others are standard source files.

Select a file from the list (c).

Click **Open** or **Select** to load the selected file (d).

When a standard file is selected or a not exactly matching custom file, Projector Toolset will ask to create a new custom file by copying the settings of the selected file into the custom file.

Click **OK** to continue.

The new created custom source file is loaded and can be edited if necessary
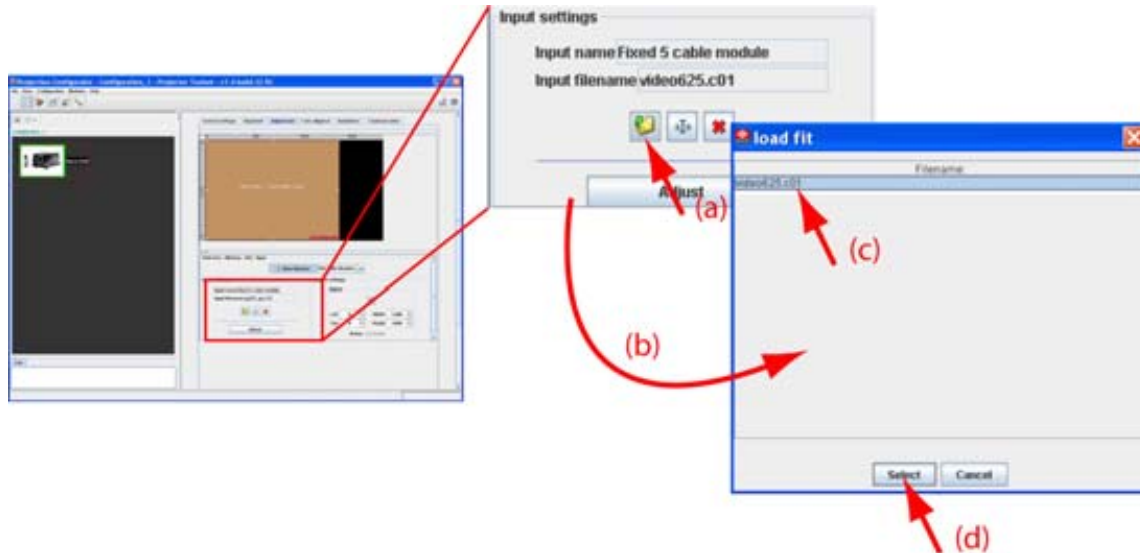


Image 8-4
Load fitting file

## Load via the input window

Select first a window.

Click on **Adjust** (a). (image 8-5)

The Input dialog box is displayed (b).

Click **File** and select *Load (FIT)* (c).

A list of fitting files is displayed in *Load (fit)* dialog box (d).

Select a file from the list (e).

Click **Open** or **Select** to load the selected file (f).

When a standard file is selected or a not exactly matching custom source file, Projector Toolset will ask to create a new custom file by copying the settings of the selected file into the custom file.

Click **OK** to create a new custom source file. If **Cancel** is pressed the previous selected file is loaded again.

The new created file can be edited.
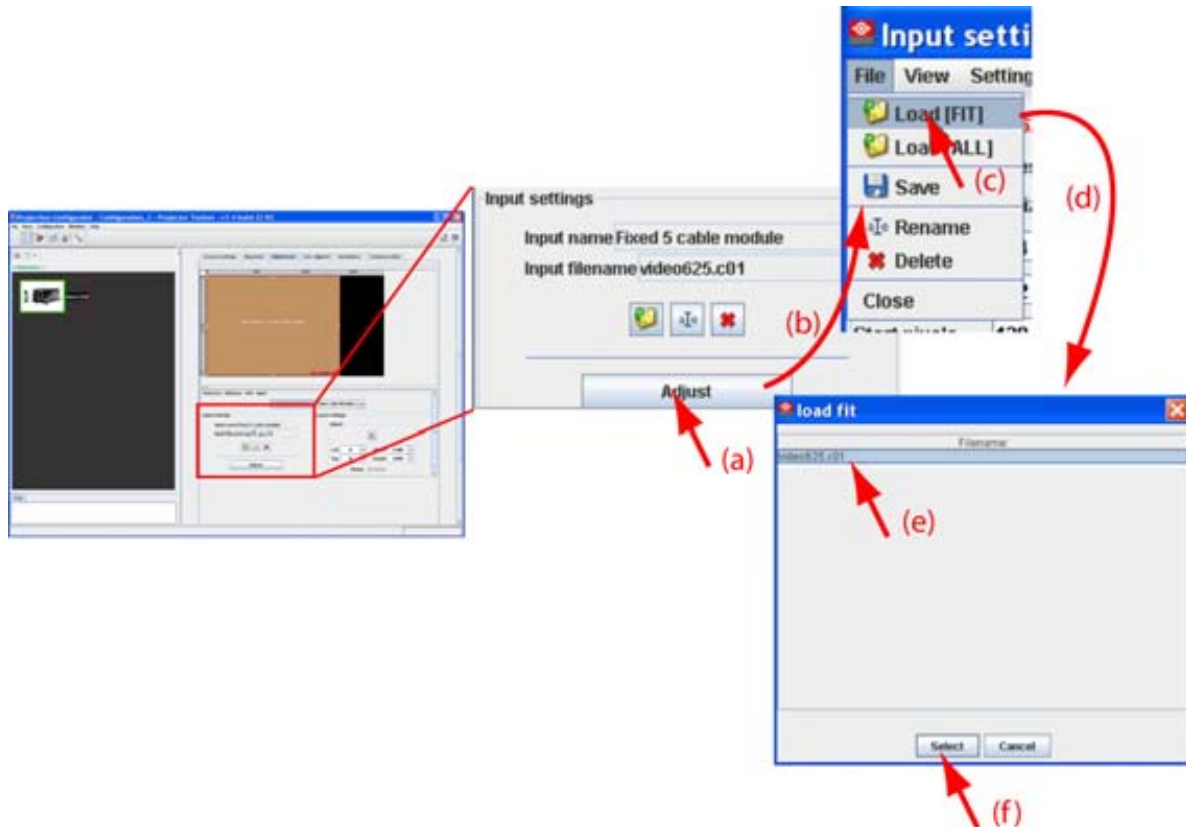
Image 8-5
Load fitting file

### 8.3.3 Load a file from all files

#### What is possible?

A file can be loaded from the complete list of all files.

#### How to load

Select first a window.

Click on **Adjust** (a). (image 8-6)

The *Input* dialog box is displayed (b).

Click **File** and select *Load (ALL)* (c).

A list of all files is displayed in *Load (All)* dialog box (d).

Click on the desired file in the list (e) and click **Open or Select** (f).

When a standard file is selected or a not matching custom file, Projector Toolset will ask to create a new custom source file by copying the settings of the selected file into the custom file.

Click **OK** to create a new custom source file. If **Cancel** is pressed the previous selected file is loaded again.
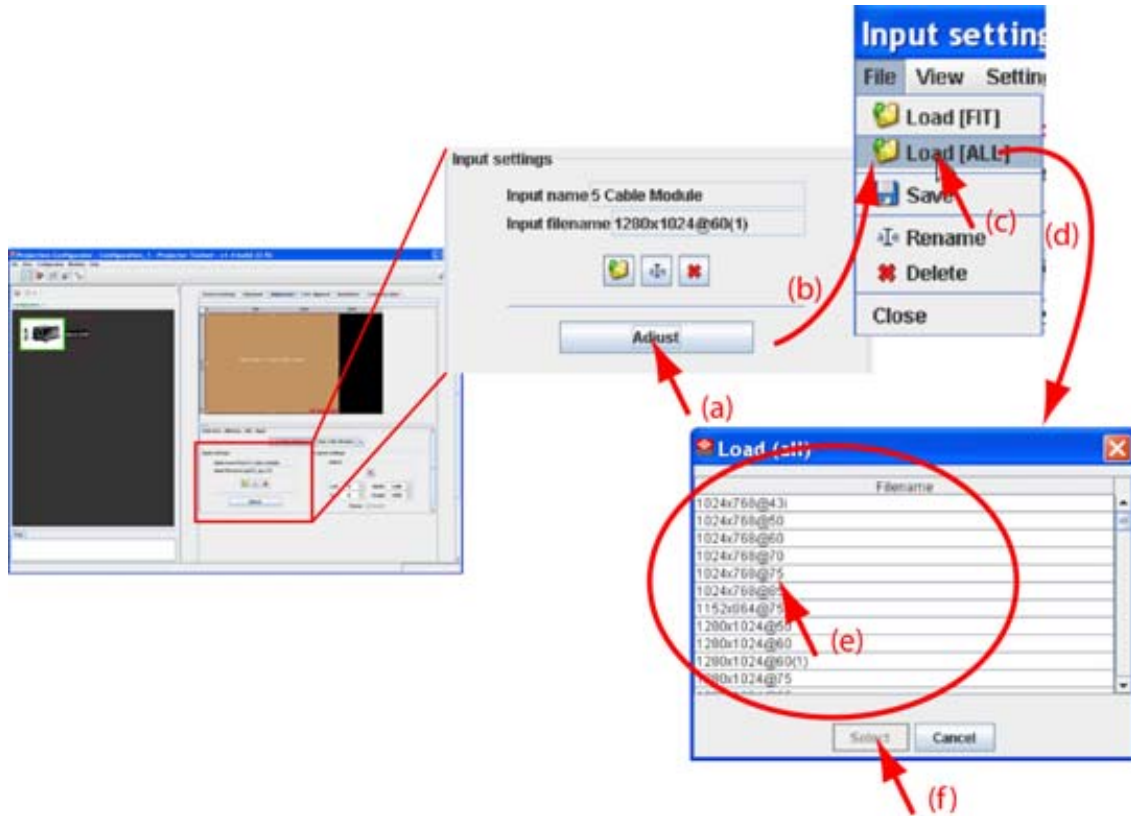
The new created file can be edited.

Image 8-6
Load file from all files

### 8.3.4    Edit Input settings

#### Adjustable items

*   *Total horizontal pixels*: total horizontal pixels in the source. If the value is wrong, sampling mistakes (small vertical bars in the projected image) will be seen in the image.
*   *Active horizontal pixels*: determine the width of the window on the screen. This value is normally given in the source specifications. If not, adjust until full image height is displayed (no missing lines).
*   *Horizontal start in pixels*: number of pixels between the beginning of the input signal and the start of the video information in the signal.
*   *Total vertical pixels*: total vertical pixels in the source.
*   *Active vertical pixels*: number of vertical pixels determining the height of the projected image. This value is normally given in the specifications of the source. If not, adjust until full image height is displayed (no missing lines)
*   *Vertical start in pixels*: number of pixels between the start of the input signal and start of the image on the screen.
*   Horizontal period in nanoseconds.

#### How to edit

Select first a window.

Click on **Adjust**. (image 8-7)

> The *Input* dialog box is displayed. The current used input file is indicated next to *Active input file*.

Click in the text box of the spin box of the desired item and enter the desired value with the keyboard
> Or,
> click on the up down control until the desired value is reached.
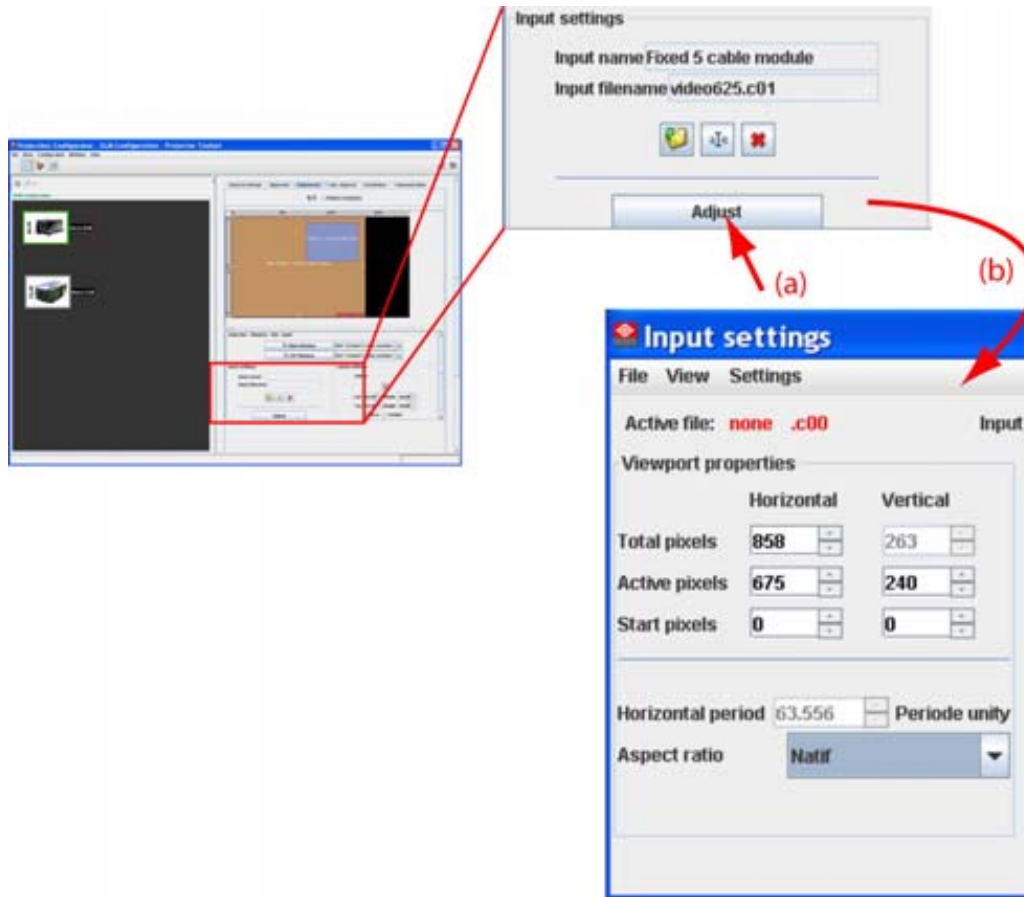
Image 8-7
Adjust timings source file

> 📄 **Once a value or a setting is changed the file name next to *Active input file* gets an asterisk to indicate that the file is not saved yet.**

> 📄 **When closing the *Input* dialog box, Projector Toolset asks to save the changes.**

### 8.3.5  Save changes on an input file

#### What can be done?

Once a loaded file is changed, the settings can be save in the same file.

When changes are made in the *Input* dialog box and when closing this box without first saving, the software asks to save the settings anyway.

> 📄 **The save is executed on the projector.**

#### For direct save

Click **Adjust**. (image 8-8)

  The *Input* dialog box is displayed.

Click on **File** and select *Save*.

The settings are saved in the same file on the projector.
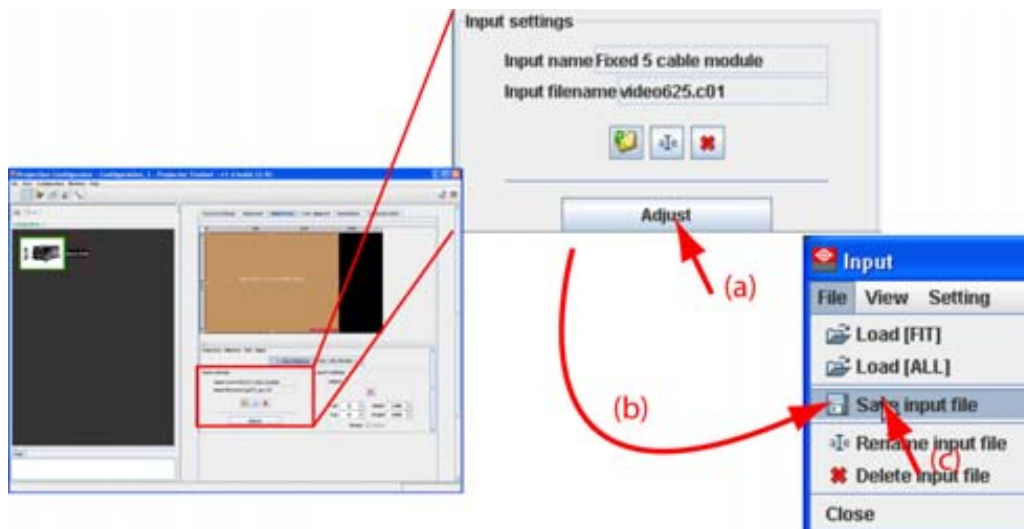


Image 8-8
Save custom source file

---

**When closing the *Input* dialog box, Projector Toolset asks to save the changes.**

---

### 8.3.6    Rename the current input file

#### What can be done?

The current input file can be rename.

---

**Not possible to rename the active file (current loaded file).**

---

#### How to rename, way 1

Click on the rename icon on the Input settings pane (a). (image 8-9)

The *Rename input* dialog box opens (b).

Select the file to rename from the list (c) and click **Rename** (d).

An *Input* dialog box opens (e). The current name is filled out.

Select the current name (f) and enter a new name.
***Note:*** *Only the characters a to z, A to Z, 1 to 9 and (, ), _, -, @ or allowed in a name.*

Click **OK** (g).

The name is changed into the new name.
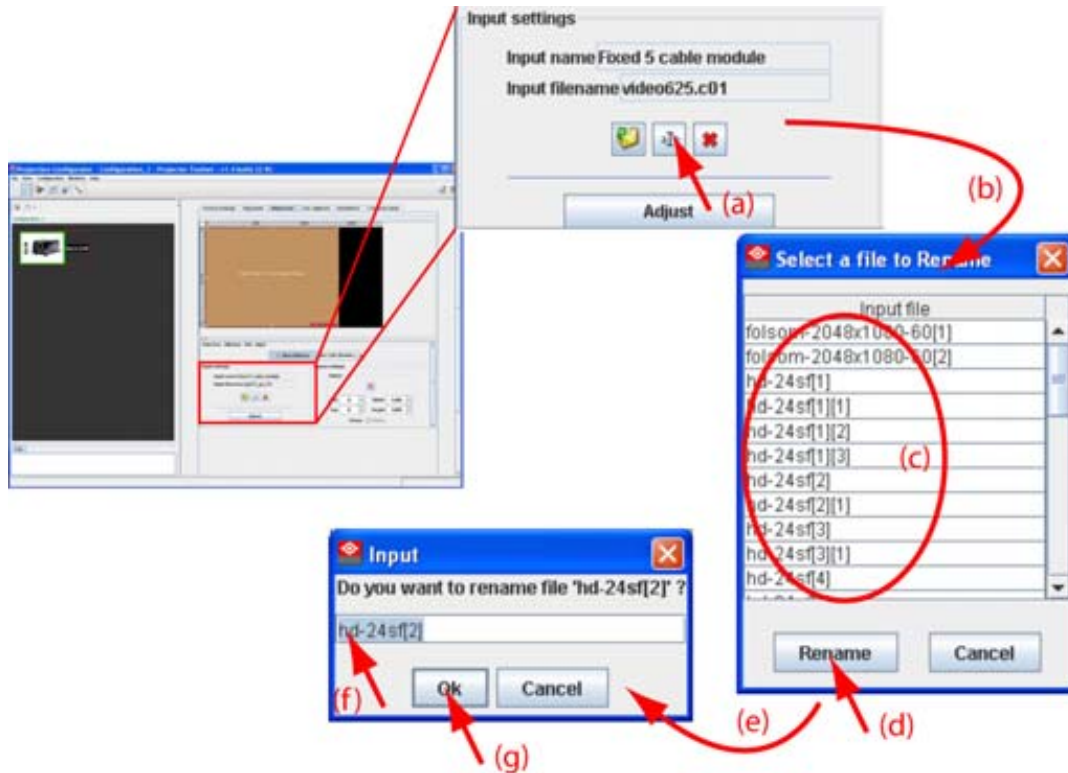
Image 8-9
Rename source file via icon

## How to rename, way 2

Click on **Adjust** (a). (image 8-10)

> The *Input* dialog box opens (b).

Click on **File** and select *Rename* (c).

> The *Rename input* dialog box opens (d).

Select the file to rename from the list (e) and click **Rename** (f).

> An *Input* dialog box opens. The current name is filled out (g).

Select the current name (h) and enter a new name.
> *Note: Only the characters a to z, A to Z, 1 to 9 and (, ), _, -, @ or allowed in a name.*

Click **OK** (i).

> The name is changed into the new name.
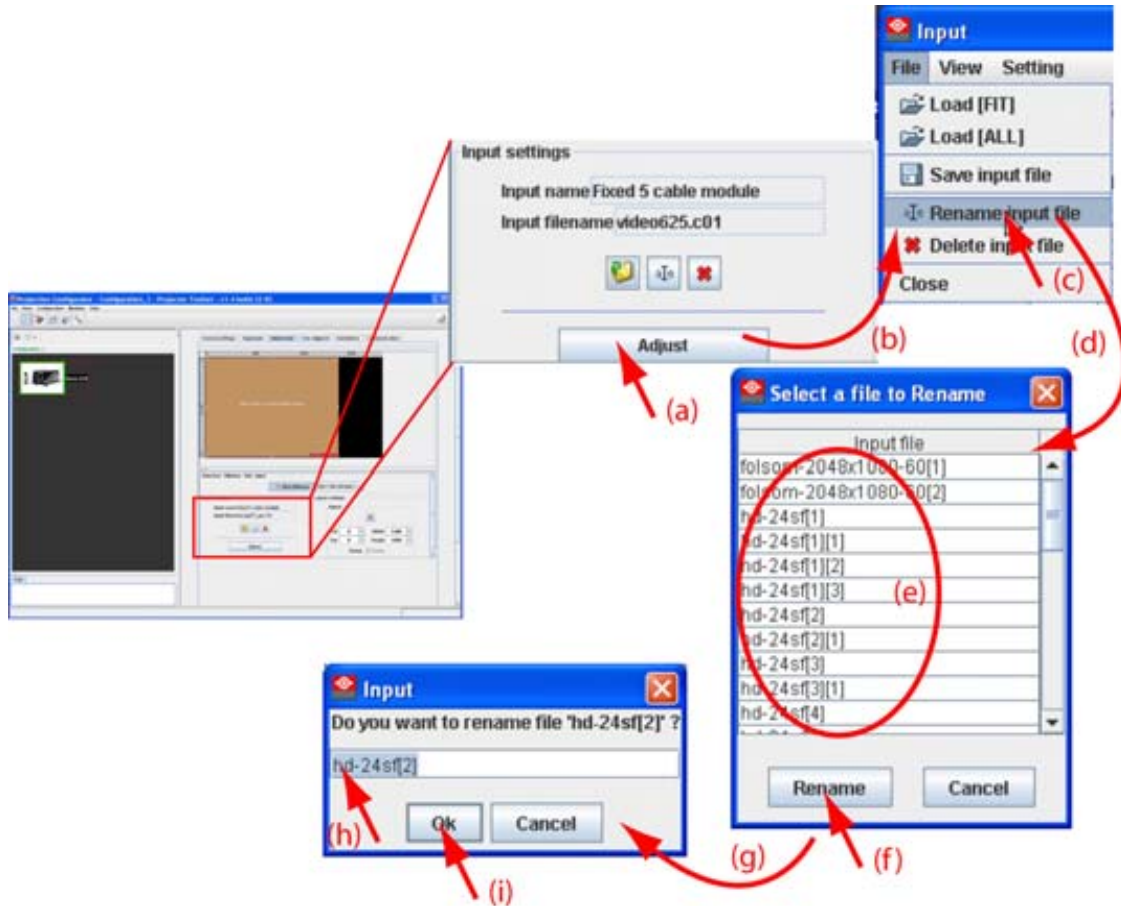
Image 8-10
Rename via input settings

### 8.3.7 Deleting an input file

#### What is possible?

Any custom input file can be delete. It is not possible to delete standard files.

> **Not possible to delete the active file (current loaded file).**

#### How to delete, way 1

Click on the delete icon on the *Input settings* pane (a). (image 8-11)

  The *Delete input* dialog box opens (b).

Select the file to delete from the list (c) and click **Delete** (d).

  A *Question* dialog box opens to ask if you are sure to delete the selected file (e).

Click **Yes** (f).

  The selected file is deleted.
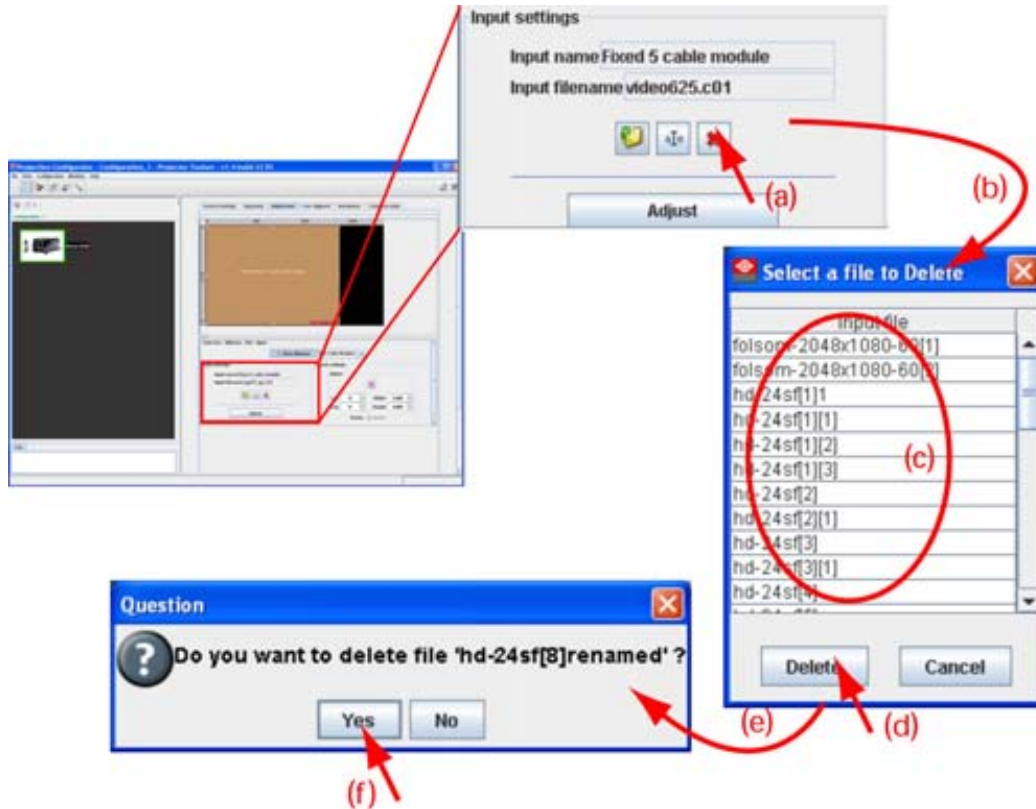
Image 8-11
Delete custom file via icon

## How to delete, way 2

Click on **Adjust**. (image 8-12)

    The *Input* dialog box opens.

Click on **File** and select *Delete*.

    The *Delete input* dialog box opens.

Select the file to delete from the list and click **Delete**.

    A *Question* dialog box opens to ask if you are sure to delete the selected file.

Click **Yes**.

    The selected file is deleted.
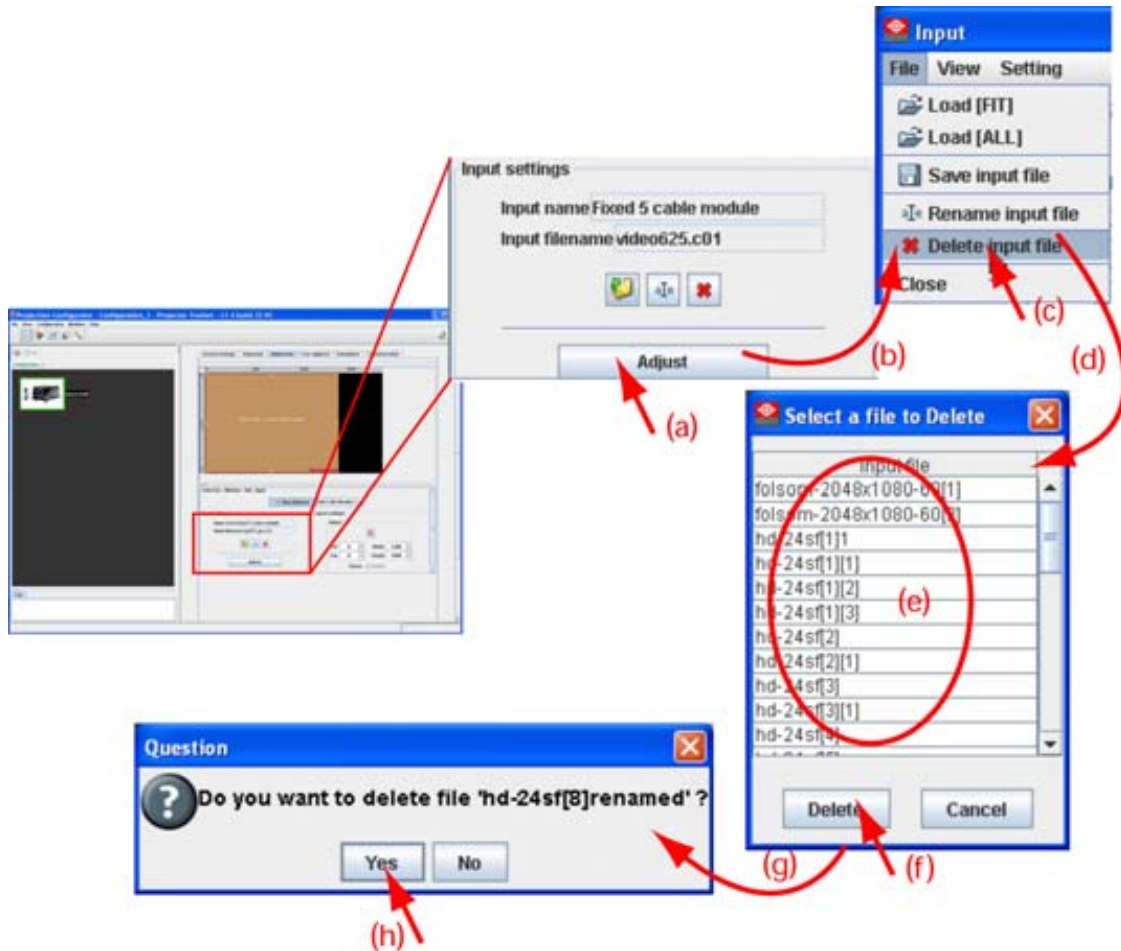
Image 8-12
Delete custom file via input settings

### 8.3.8 Aspect ratio for selected input

#### What can be done?

The aspect ratio setting forces the input source in the selected format.

| Aspect ratio | Description |
| --- | --- |
| 4:3 | Standard television format |
| 16:9 | Wide screen television format / anamorphic format |
| 5:4 | Workstation format |
| 2.35 | Film format |
| 1.88 | |
| 1.78 | Wide screen television format / anamorphic format |
| Native | Shows a 1/1 format |

When *Unlocked* in the context menu is not checked, the layout window will follow the input aspect ratio setting.

Type of input signal is indicated above each image row. The image row shows how the image will be projected in the different aspect ratio settings (example is given for a 4 to 3 DMD).

| 4/3 | 5/4 | 16/9 |
|---|---|---|

**Video Signal Pal/Secam**



**Video Signal NTSC**



**Video Signal 16/9**



**4/3 RGB Signal**



Image 8-13
Some examples for aspect ratio

## How to select

Select the main input to set the aspect ratio.

Click on **Adjust** (a).  (image 8-14)

The *Input* dialog box opens (b).

Click on the combo box next to Aspect ratio and select the desired aspect ratio (c).

Close the *Select an aspect ratio* dialog box.
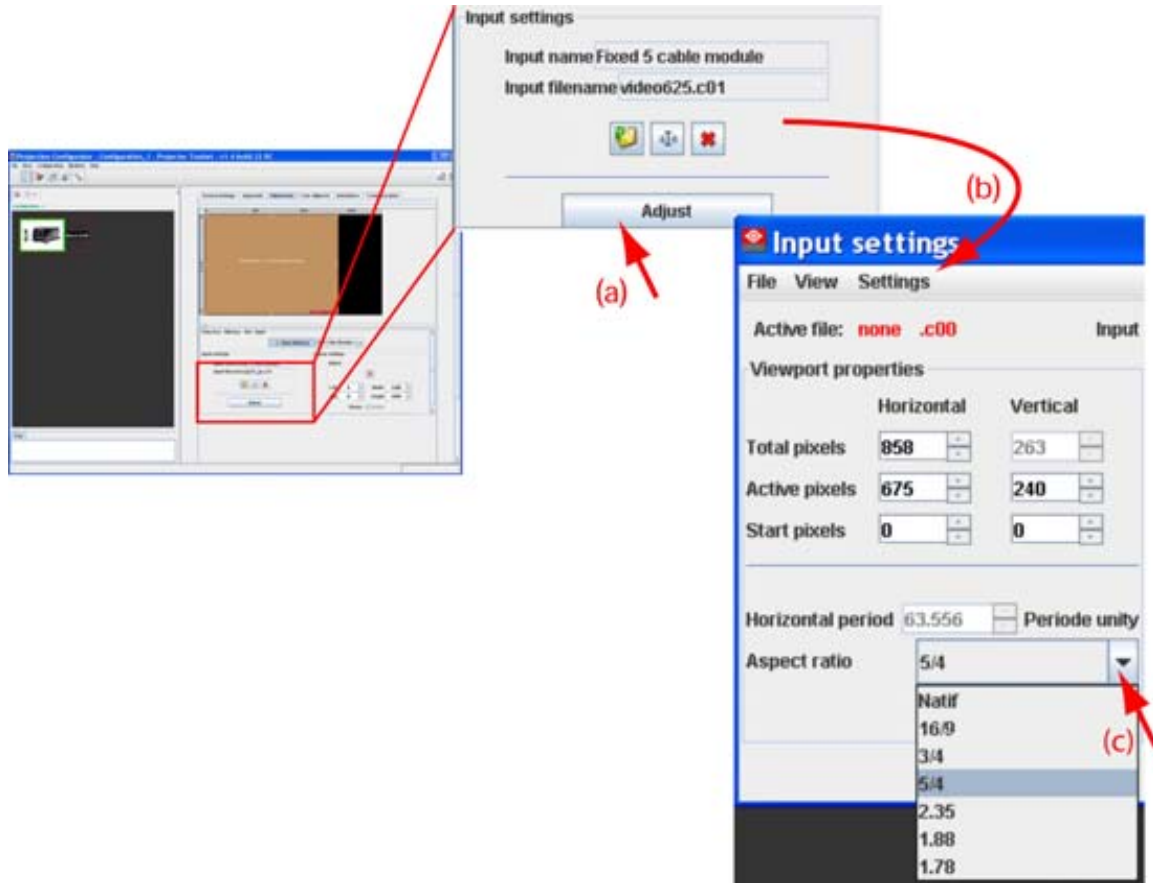
Image 8-14
Select aspect ratio

### 8.3.9 Input balance

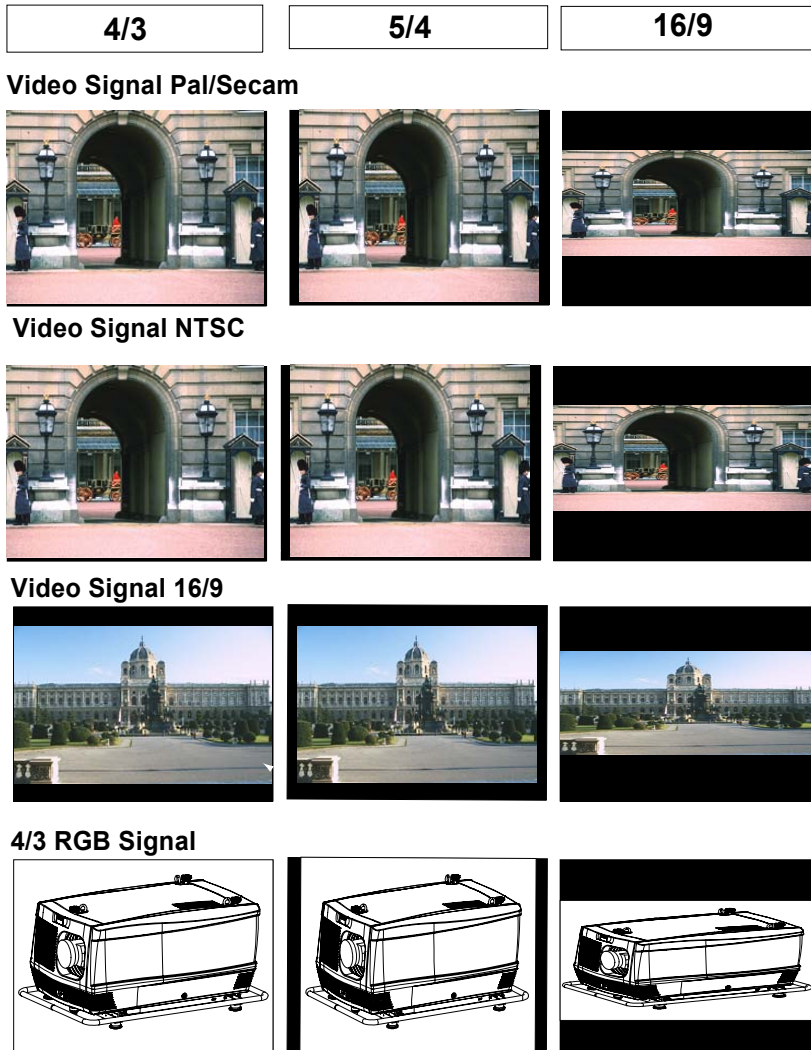#### 8.3.9.1 Introduction to Input Balance

#### Introduction: Unbalanced color signals

When transporting signals, there is always a risk of deterioration of the information contained in the signals.

In case of information contained in the amplitude of the signals which is the case of data color signals (R, G, B),image 8-15 , we are quite sure that the amplitude of these color signals is subject to alterations.

An example of alteration may be a DC component added to the signal, in the form of a DC offset repositioning the black level, since this **black level** (**"brightness"**) will become crucial later on (clamping circuit) it will result in "black not being black".

Another value that is subject to alteration is the amplitude of the signal, resulting in an altered "Gain" of the signal (**"white level"** or **contrast**).

The alterations of the three color signals will happen independently i.e. the colors will end to be unbalanced, image 8-16



Image 8-15
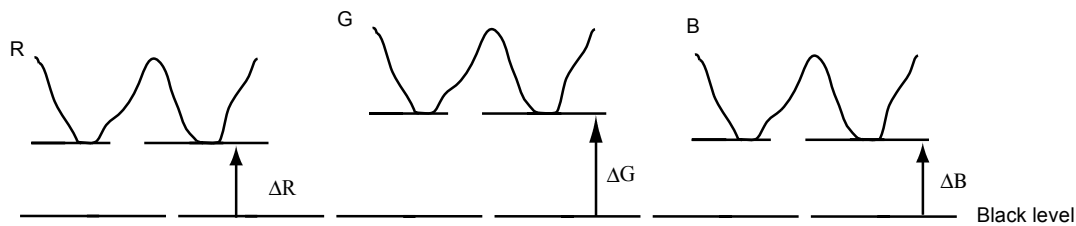
Image 8-16

One can conclude here that a good color tracking can only be met by using three previously (input) balanced color signals

## Analog Digital Conversion
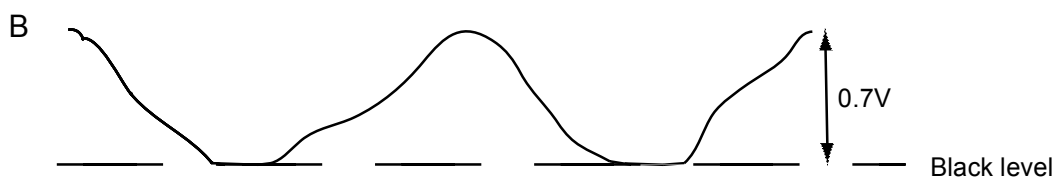
The analog color signals must pass through an Analog/Digital conversion circuit prior to any digital processing in the PMP.

A typical ADC transforms the analog value into an 8 bit coded digital signal.

The graphic shows that when converting a signal containing a DC offset component the range of the converter is not optimally used.
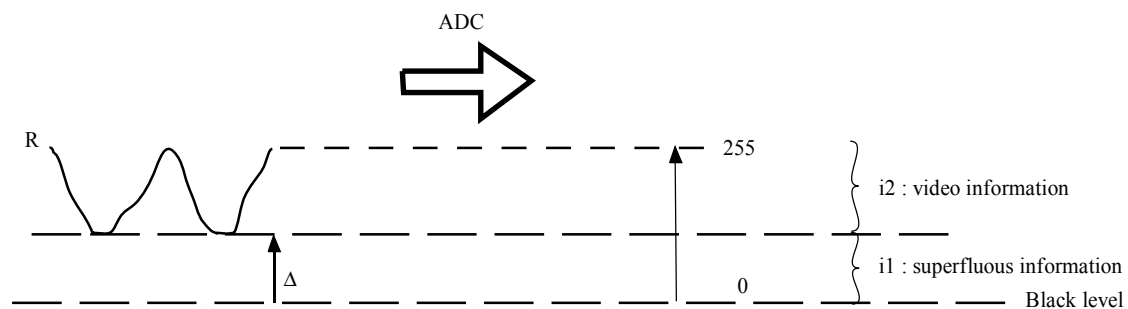


Image 8-17

One can conclude here that a good data conversion can only be met by using three previously (input) balanced color signals

## The objective of input balancing

The objective in input balancing is to "set" the same black level and the same white level for the three colors of a particular input source.

**Black level setting : brightness**

**White level setting : contrast**

The same absolute black and white level for the three colors allows the same reference for Brightness and Contrast control of the picture !

These two references also set the range in which the ADC will work for that particular source (this explains also why each input balance setting is linked to a particular source and thus saved in the image file).

### 8.3.9.2 Adjusting the input balance

#### How can it be done ?

To balance the three color signals of a particular source there are conditions; in fact we must know the black and the white level of the source i.e. :

1. The source in question must be able to generate a white signal, ideally a 100% white (background) full screen pattern

2. The source in question must be able to generate a black signal, ideally a 100% black (background) full screen pattern

A                              B



Image 8-18

White balance : In the projector, we will set the contrast for each color until we get a 100% light output picture when projecting a 100% white image (image A)

Black balance : In the projector, we will set the brightness for each color until we get a 0% light output picture when projecting a 100% black image (image B).

> **The changeover from min to max is indicated by the apparition of bright spots also called "digital noise"**

> **An alternative to a full screen White/black pattern is the standard gray scale pattern, the white bar will be used for white balance and the black bar for black balance.**



**Image 8-19**

#### Black balance adjustment

Select a window and click on **Adjust** (a). (image 8-20)

The Input dialog box opens (b).

Click on **Input balance** (c).

The Input balance dialog box is displayed.

Adjust the brightness to a minimum value until there is just no green noise visible in the black areas.

Adjust the red and blue by moving the slider up or down or by clicking on the up down control until there is no red or blue noise visible in the black areas.
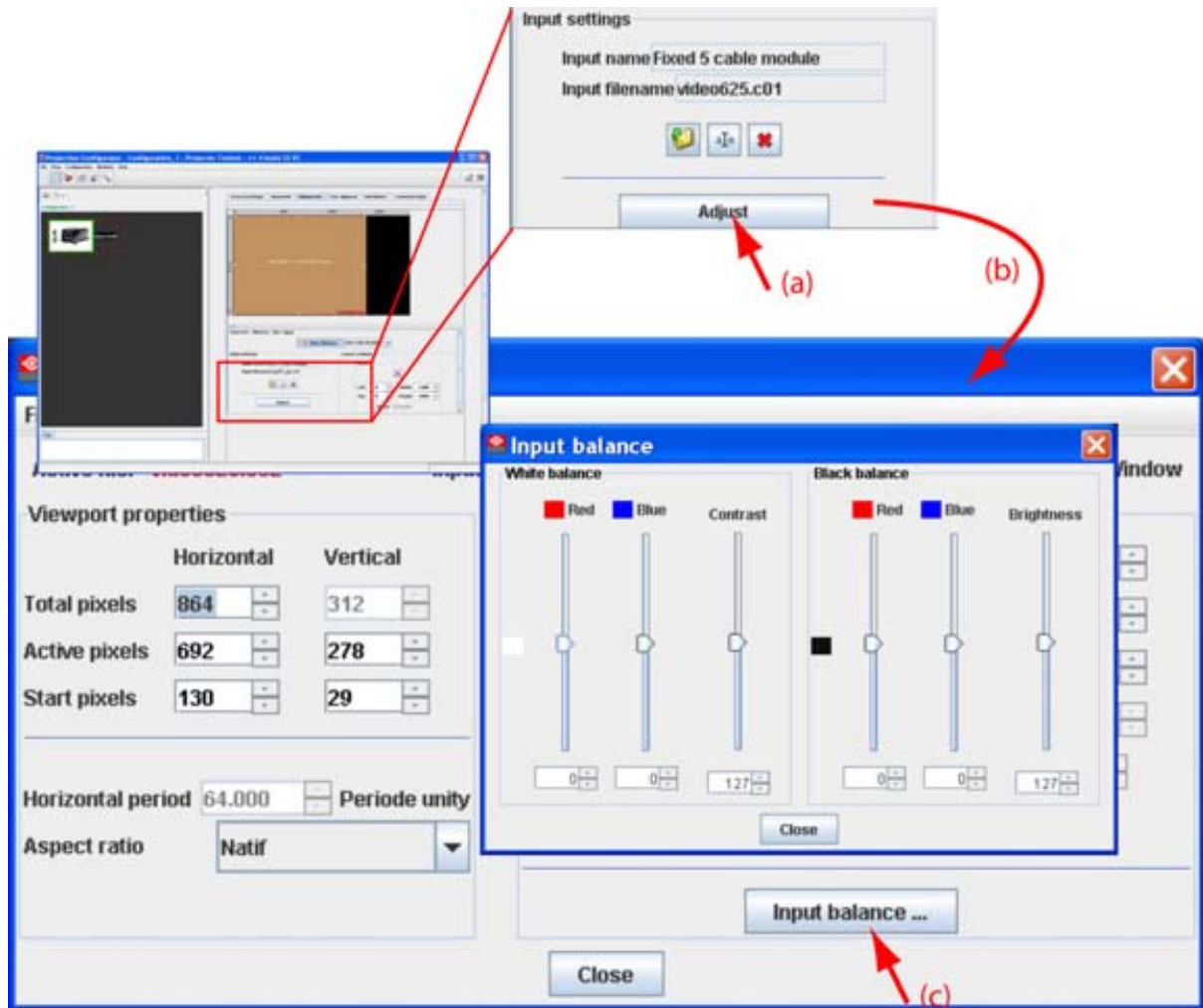


Image 8-20
Input balance adjustment

### White balance adjustment

Put gain red and gain blue on -32.

Adjust the contrast to a maximum value until the green noise becomes visible in the white areas and return one click.

Adjust red gain until red noise becomes visible in the white areas and return one click. Repeat for blue gain until blue noise becomes visible in the white areas and return also one click.

## 8.4    Image settings

### Overview

The following image settings can be adjusted depending on the source type:
- Contrast
- Brightness
- Saturation
- Phase

- Sharpness
- Noise reduction

When a setting is not adjustable, this setting is grayed out.

**Image settings are done for the main window only.**

### Access to the Image properties

Select a window (input). (image 8-21)

Click on **Adjust** (a).

The *Input* dialog box opens (b).



Image 8-21
Input settings adjustment

# 8.5 Layout settings

- Re-size a layout window
- Move a layout window
- Aspect ratio output window
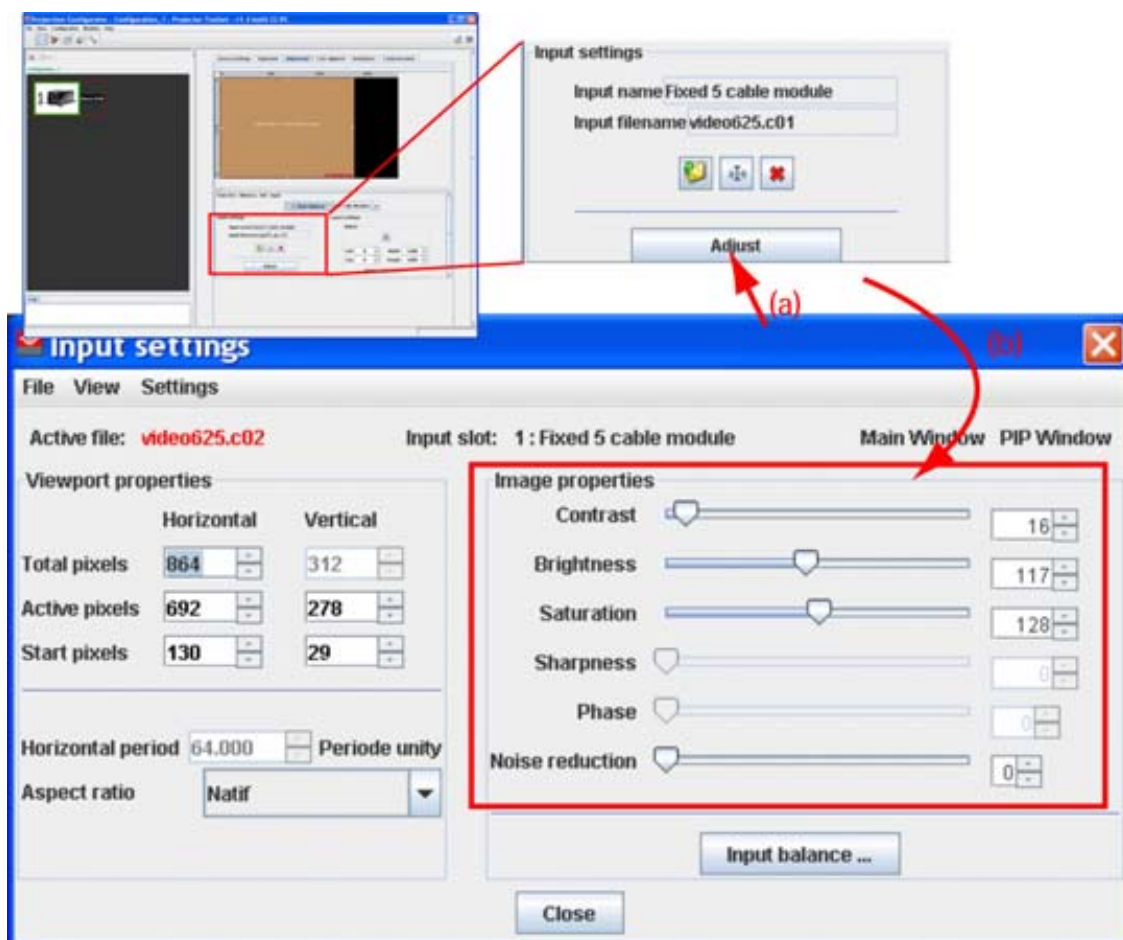- Set input window to full size
- Edit window texture

## 8.5.1    Re-size a layout window

> **Re-sizing will respect the chosen aspect ratio of the input ! Re-sizing in any direction is only possible when the aspect ratio is unlocked.**
>
> **Only the main window can be resized.**

### Re-size via drag and drop

Select the main window. (image 8-22)

> The window border becomes white and 6 re-size points are added.  The cursor becomes a 4 arrow cursor.

Move the cursor to one of the re-size points.

> The cursor becomes a 2 arrow cursor.

Click and drag the selected point to the desired position.

> When a corner point is selected, re-sizing in horizontal and vertical direction is possible.

> When a center side point is selected, only re-sizing in horizontal or vertical direction is possible.

> While re-sizing, the coordinates of the selected window are updated automatically.



Image 8-22
Resizing via drag and drop

### Re-size via width and height

Select the main window. (image 8-23)

> The coordinates are displayed.

Click on the up down control of the spin box of the *Width* and *Height* until the desired value is reached
Or,
click in the input field of the spin box of *Width* and *Height* and enter the desired value.
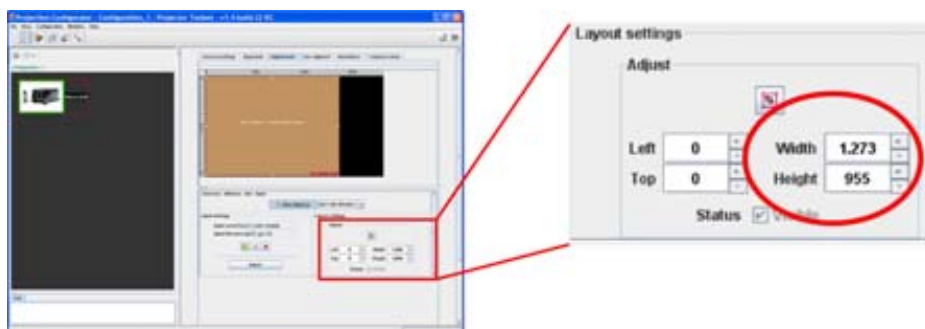*Note: The upper left corner is fixed during re-sizing.*



Image 8-23
Re-size via coordinates

### 8.5.2 Move a layout window

#### Move via drag and drop

Select the main window. (image 8-24)

The window border becomes white. The cursor becomes a 4 arrow cursor.

Click somewhere inside the window and hold down the button to grab the window.

Move the window to the desired position. The *Top Left* values will change accordingly.



Image 8-24
Move the main window

#### Move via the coordinates

Select the main window. (image 8-25)

Change the *Top* and *Left* value indicating the current start position of the window. Click on the up down control of the spin box until the desired value is reached
Or,
click inside the input field of the spin box and enter the desired value with the keyboard.
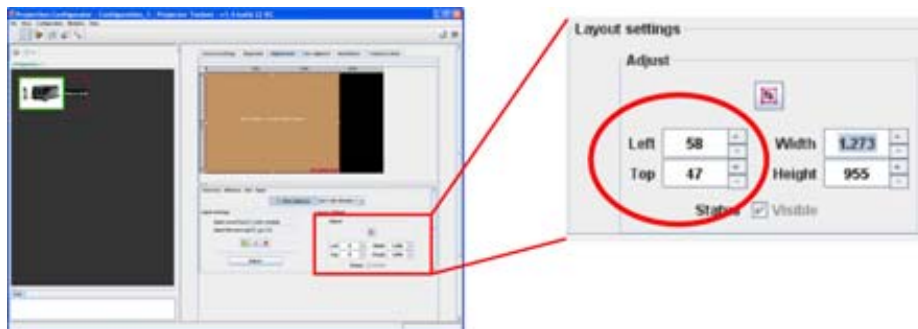


Image 8-25
Move window via coordinates

### 8.5.3 Aspect ratio output window

**Aspect ratio**

Relation between the horizontal & vertical dimension in which the window will be displayed, e.g. 4 by 3 or 16 by 9. Can also be expressed as a decimal number, such as 1.77. The larger the ratio or decimal, the wider are less square the image.

#### How to change

Right click on the window to change the aspect ratio. (image 8-26)

A context menu opens.

Select *Aspect ratio locking* and move the cursor to the right.

The possible choices are displayed.
Possible choices are:

- 3/2
- 4/3
- 14/9
- 16/9
- 21/9
- custom:  current aspect ratio is fixed, what ever it is.
- unlocked:  no locking between the displayed window (input) and the layout window.

When a fixed aspect ratio is selected the layout window will follow the aspect ratio of the input window.

Select the desired aspect ratio for the selected window.



Image 8-26
Aspect ratio locking
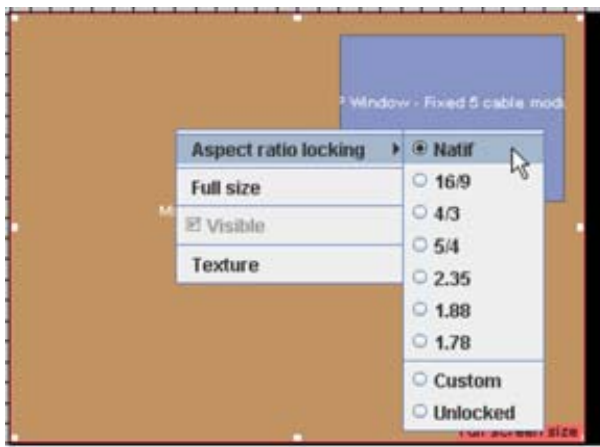
> **The input window is represented by white dotted area.**

> **When re-sizing the output window, the input will move are re-scale in the same way.**

## When custom is selected

Set up the custom aspect ratio by changing X and Y until the desired ratio is obtained. (image 8-27)
   *Note: To return to the input aspect ratio, click on* **To input aspect ratio***.*

Click **OK** to accept.

Image 8-27
Custom aspect ratio

### 8.5.4 Set input window to full size

**Aspect ratio will be unlocked.**

### Via the context menu

Right click on the window. (image 8-28)

A context menu appears.

Select **Full size**.

The selected window jumps to full size independent its aspect ratio setting.



Image 8-28
Set window to full size

### Via the layout settings

Select the window to re-size. (image 8-29)

Click on the full size icon.

The selected window jumps to full size independent its aspect ratio setting.
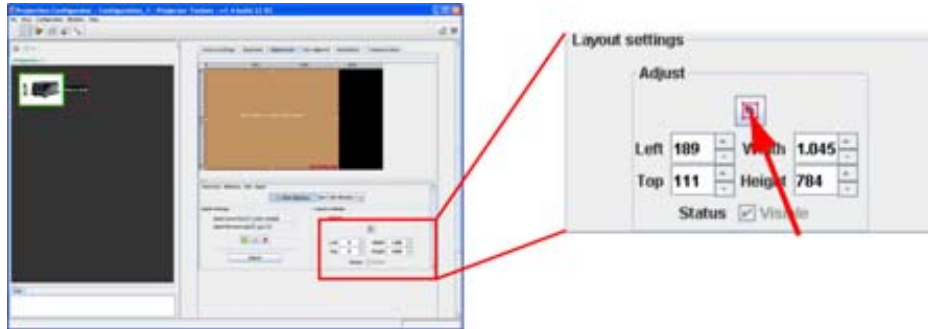
Image 8-29
Set window to full size

## 8.5.5 Edit window texture

> **Window texture**
>
> Background of window representation in Layout preview. The texture can be a color or a picture.

- Start up
- Color fill
- Picture

### 8.5.5.1 Start up

#### Introduction

The rectangular which represents the window in the preview pane can have a colored filling or a picture as filling. When using a picture as filling, the picture can be repeated to completely fill the window rectangular.

By giving other colors or pictures to the different windows a distinction between the sources can be made.

#### How to startup

Right click on the window to change the texture (a). (image 8-30)

A context menu opens.

Select *Texture*.

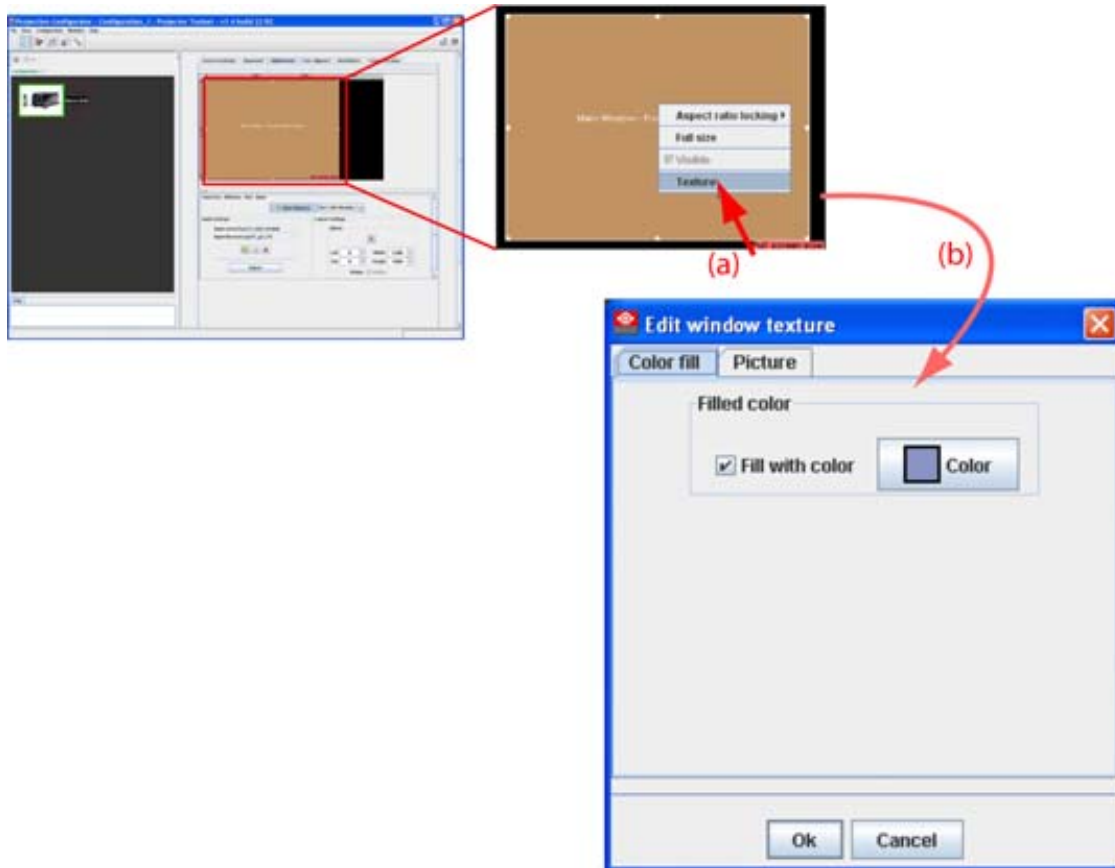The *Edit window texture* dialog box opens (b).

Image 8-30
Edit window texture

## 8.5.5.2  Color fill

### Color fill or not

To apply a Color fill to a window, the window must be selected first.

To fill the rectangular with a color, check the check box in front off *Fill with color*.



Image 8-31
Edit window texture

Note: When Picture fill is displayed, click first on **Color fill** tab.

## Select a color

Click on **Color** button.

> The color value window will be displayed (image 8-32.

3 ways are now possible to select a color, represented by a tab in the *Color value* window.

| | |
|---|---|
| Tab swatches = way 1 | Via the swatches color window, step 3. |
| Tab HSB = way 2 | Via the HSB color window, step 4. |
| Tab RGB = way 3 | Via the RGB color window, step 5. |

Select the desired color (via swatches = predefined color samples). (image 8-32)

> The first selected color will be indicated in *Recent*. When others are selected for a preview, the color indication will also be added in the *Recent* list as first one. Finally, the color selection can be done from the *Recent* list or out of the color pallet.

> Each time a color is clicked, a preview will be given in the preview pane. Continue with step 6.

Click on the **HSB** tab to display the color pallet (HSB = Hue - Saturation - Brightness). (image 8-33)
A color can be selected in 2 ways:
- Slide the slider next to the color gamut until the wanted color in the color pick field is reached, or fill out the HSB value until the desired color is reached in the pick up field.
- Click in the color field to display the white circle. Drag that circle to the desired tint of the chosen color.

> A preview will be given in the preview pane. Continue with step 6.

Click on **RGB** tab to display the RGB selection sliders. (image 8-34)

> Move the sliders until the desired color is reached, or fill out the RGB values in the input boxes.

> A preview will be given in the preview pane. Continue with step 6.

Click on **OK** to apply the selected color.



Image 8-32
Color value via swatches

Image 8-33
Color value via HSB



Image 8-34
Color value via RGB

### 8.5.5.3 Picture

**To apply a picture to a window, a window must be selected first.**

**Insert a picture**

Click on tab **Picture** (a).

The picture selection dialog box opens. (image 8-35)

Click on **Select picture...** (b).

The browse dialog box opens (c).

Browse to the desired image file (d) and click **Open** (e).

The selected picture is displayed in the preview area (f).

Check the desired option (g).

    Scale     the picture is scaled so that the complete rectangular is filled.

    Repeat    the picture is repeated as many times as necessary to completely fill the rectangular.

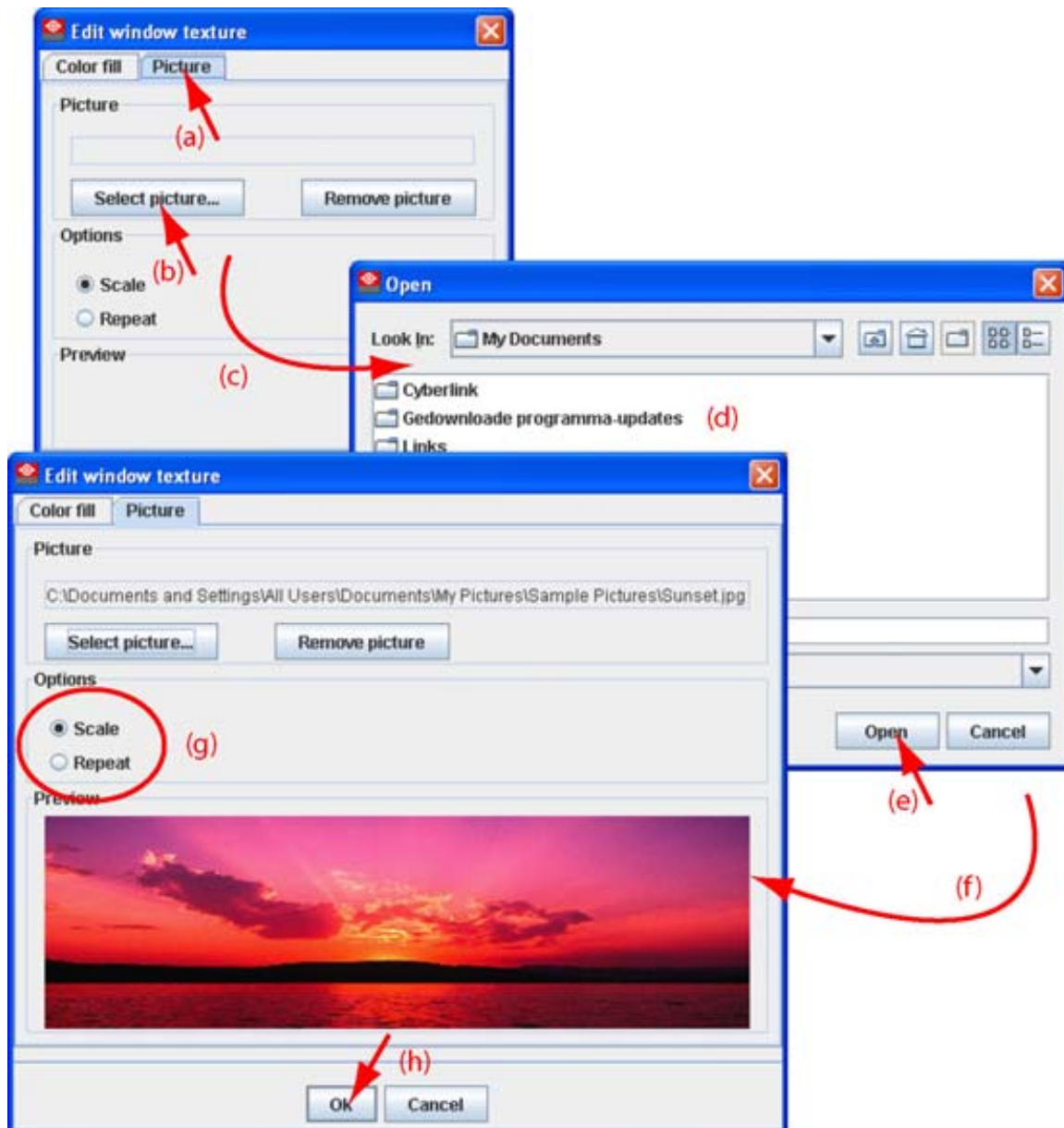Click **OK** to insert the selected picture (h).



Image 8-35
Window texture, picture

## Supported types

- bitmap (bmp)
- gif
- jpeg 2
- png

## Removal of a picture

Click on **Remove picture**.

The picture filling is removed from the window.

# 9. CONFIGURATOR, INSTALLATION SETTINGS

- Image orientation
- Lamp settings

## 9.1    Image orientation

### The different configurations

Depending on the installation, the projector can be mounted in different ways. The 4 possible configurations are:

- Front / Table
- Front / Ceiling
- Rear / Table
- Rear / Ceiling

Font : projector is installed in table or ceiling mount configuration at the same side of the screen as the audience.

Rear: projector is installed in table or ceiling mount configuration at the other side of the screen opposite the audience.

### How to change

Click on the drop down arrow of the combo box in the Image orientation pane. (image 9-1)

   A list with the possible selection opens.

Select the correct orientation from the list.

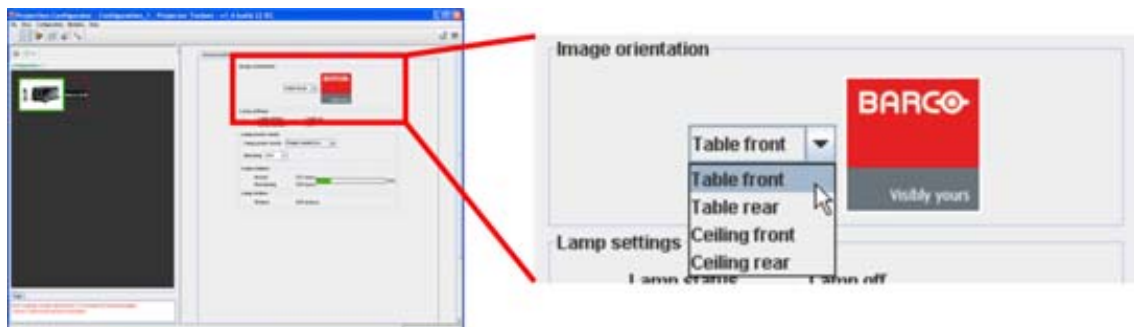   The icon next to the combo box changes accordingly.



Image 9-1
Image orientation

## 9.2    Lamp settings

### Current lamp settings

#### Lamp status

Indicates the status of the lamp.

Lamp on        Image projection possible

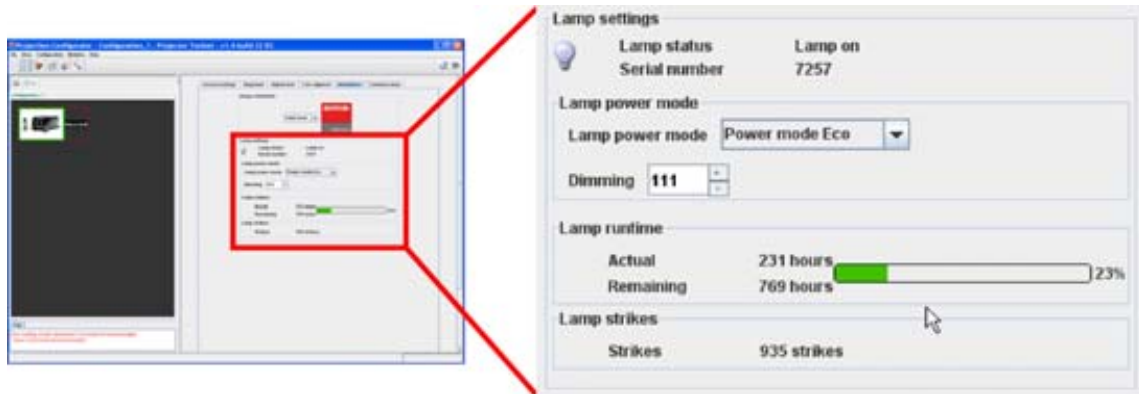Lamp off        Image projection not possible



Image 9-2
Lamp settings

## Lamp power mode

Click on the drop down box and select the desired power mode.

| | |
|---|---|
| Power mode Normal | Maximum allowed power is fed to the lamp. Maximum light output is reached in this way. |
| Power mode Eco | a reduced wattage is fed to the lamp. Reduced light output but a longer life time for the lamp. |

Dimming, click on the slider and move the desired dimming position or click on the up down control of the spin box until the desired dimming is reached.

## Lamp run time

This gives an indication of the current and remaining run time. A visual indication via a progress bar shows the current run time in percentage of the total safe run time of the lamp.

## Lamp strikes

Indicates the number of times the lamp has been started since the first startup.

# 10. CONFIGURATOR, COMMUNICATION SETTINGS

- Network settings
- Serial network address

## 10.1 Network settings

- Ethernet Connection
- Assign an Ethernet address via DHCP
- Manually assign an Ethernet address

### 10.1.1 Ethernet Connection

**IP**

Internet Protocol. The network layer of TCP/IP. Required for communication with the internet.

**Subnet mask**

A number that is used to identify a subnetwork so that IP addresses can be shared on a local area network.

**Default Gateway**

A router that serves as an entry point into and exit point out of a network. For example, a local network (LAN) may need a gateway to connect it to a wide area network (WAN) or to the Internet.

**DHCP**

Dynamic host configuration protocol. DHCP is a communications protocol that lets network administrators manage centrally and automate the assignment of IP addresses in an organization's network. Using the Internet Protocol, each machine that can connect to the Internet needs a unique IP address. When an organization sets up its computer users with a connection to the Internet, an IP address must be assigned to each machine. Without DHCP, the IP address must be entered manually at each computer and, if computers move to another location in another part of the network, a new IP address must be entered. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network.

**What should be set up for the Ethernet address**

2 ways can be used to assign an address:

- use the DHCP setting so that a automatic address will be assigned.
- Assign manually an IP address, Subnet-mask, default gateway address.
  - Set the IP-Address field to the desired value. The IP address identifies a projector's location on the network in the same way a street address identifies a house on a city block. Just as a street address must identify a unique residence, an IP address must be globally unique and have a uniform format.
  - Set the Subnet-Mask as appropriate for the local subnet.
  - Set the Default-Gateway to the IP-Address of the local router (MUST be on the local subnet!) on the same network as this projector that is used to forward traffic to destinations beyond the local network. If there is no router on the projector's local subnet then just set this field to any IP-Address on the subnet.

### 10.1.2 Assign an Ethernet address via DHCP

#### How to set up

Click on the radio button in front of *Obtain an IP address Automatically (DHCP)* in the *Network settings* pane (a) (image 10-1)

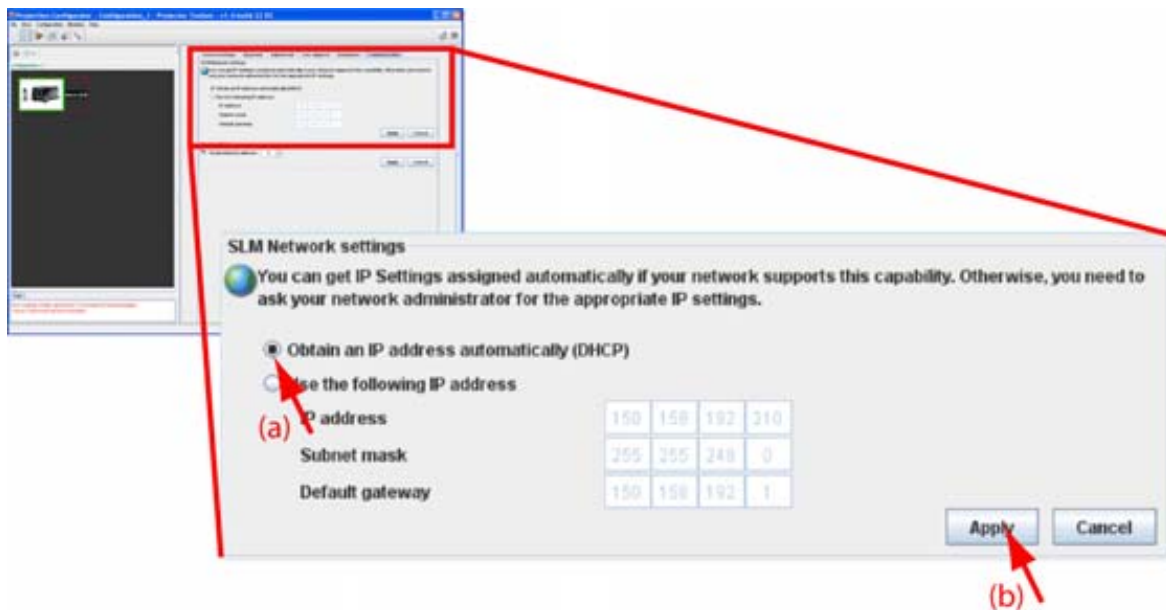Click on **Apply** (c)

The network setting is applied.



Image 10-1
Network setting, DHCP

### 10.1.3 Manually assign an Ethernet address

#### How to set up

Click on the radio button in front of *Use the following IP address* in the *Network settings* pane (a) (image 10-2)

Click in the input field of the IP address and fill out the 4 fields (b)
   **Note:** *An address contains 4 octets with a maximum value of 255.*

Click in the Subnet mask input fields and fill out the 4 fields as appropriate for the local subnet (b).

Click in the Default Gateway input fields and fill out the 4 fields. Set the Default Gateway to the IP-Address of the router (MUST be on the local subnet!) (b).
   **Note:** *If there is no router on the projector's local subnet then just set this field to any IP-Address on the subnet.*

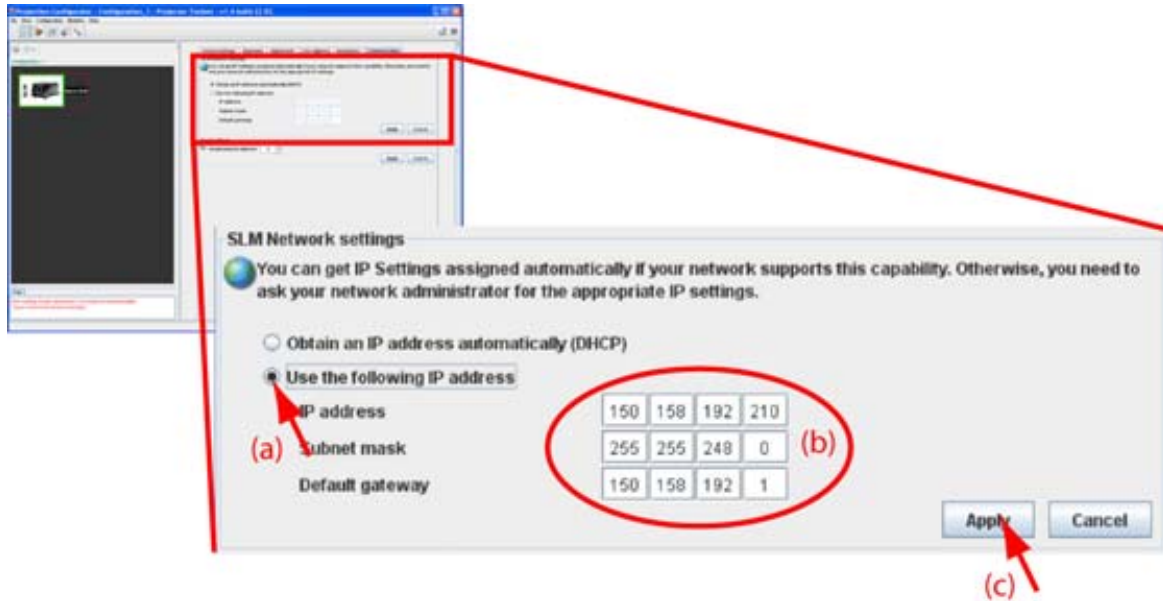Click **Apply** to activate (c).



Image 10-2
Network settings, manually

> The PC's IP Address MUST be within the same subnet as the projector's IP Address in order for communication to be possible. This requires checking the PC's and projector's Subnet-Mask settings.

## IP address examples

First example
- PC IP Address : 192.168.100.5
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : Communication possible. PC address is in the subnet range of the projector's IP address.

Second example
- PC IP Address : 10.16.236.100
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : No communication possible. PC address is not in the subnet range of the projector's IP address.

Third example
- PC IP Address : 192.168.200.1
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : No communication possible. PC address is not in the subnet range of the projector's IP address. The third group in the PC IP address and Projector IP address must be the same.

Fourth example
- PC IP Address : 192.168.200.1
- PC Subnet Mask : 255.255.0.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.0.0

Remark : Communication possible. PC address is in the subnet range of the projector's IP address. The third group in the IP¨ addresses can be any value as the third group in the subnet mask is 0.

## 10.2 Serial network address

**Do not change the serial network address when connected over a serial loop.**

### How to set up

Click on the up down controls of the spin box next to Serial network address until the desired address is displayed
Or,
click in the input field of the spin box and enter the desired address with the keyboard. (image 10-3)

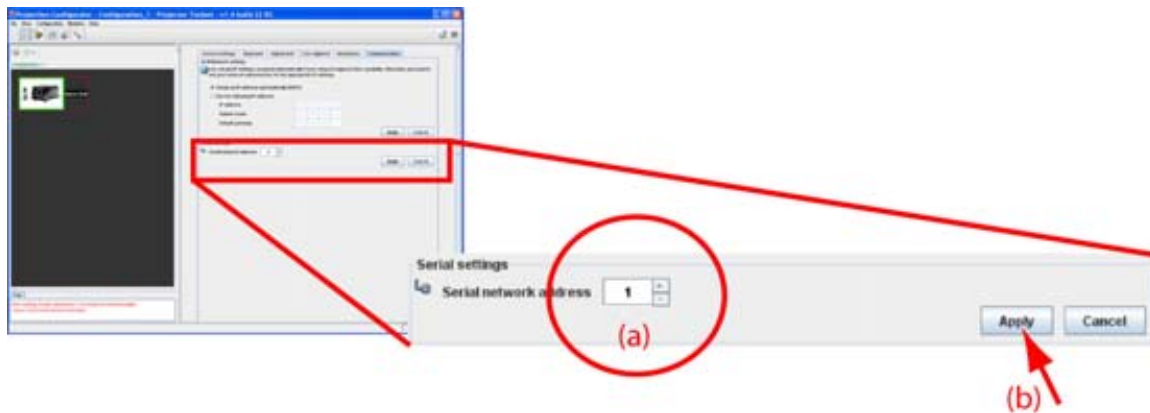Click **Apply**.

The serial network address is set.



Image 10-3

# 11. UPDATER

- Introduction
- Version info

## 11.1 Introduction

### Overview

Only the software of the network module of the projector can be update. The projector firmware itself cannot be updated via Projector Toolset. To update the firmware, use the Codecontrol.exe program which is included in the zip file.

Free downloadable packages can be found on Barco's Partnerzone, (URL: https://my.barco.com). Registration is necessary.

If you are not yet registered, click on *Sign up my.barco* and follow the instructions. With the created login and password, it is possible to enter the Partnerzone where you can download the desired software upgrades.

### Preparations

The downloaded file is a zip file. Unzip this file before continuing.

### Start up

To start up the Updater, just click on the Update icon (  ) on the navigation button bar or click on **Modules** and select *Updater*.
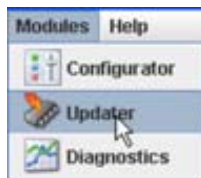


Image 11-1
Start Updater module

## 11.2 Version info

> Retrieving version info is only possible when connected to the projector via a LAN network.

### To get version info

Click on the **Version info** tab. (image 11-2)

Click on the **Refresh** button.

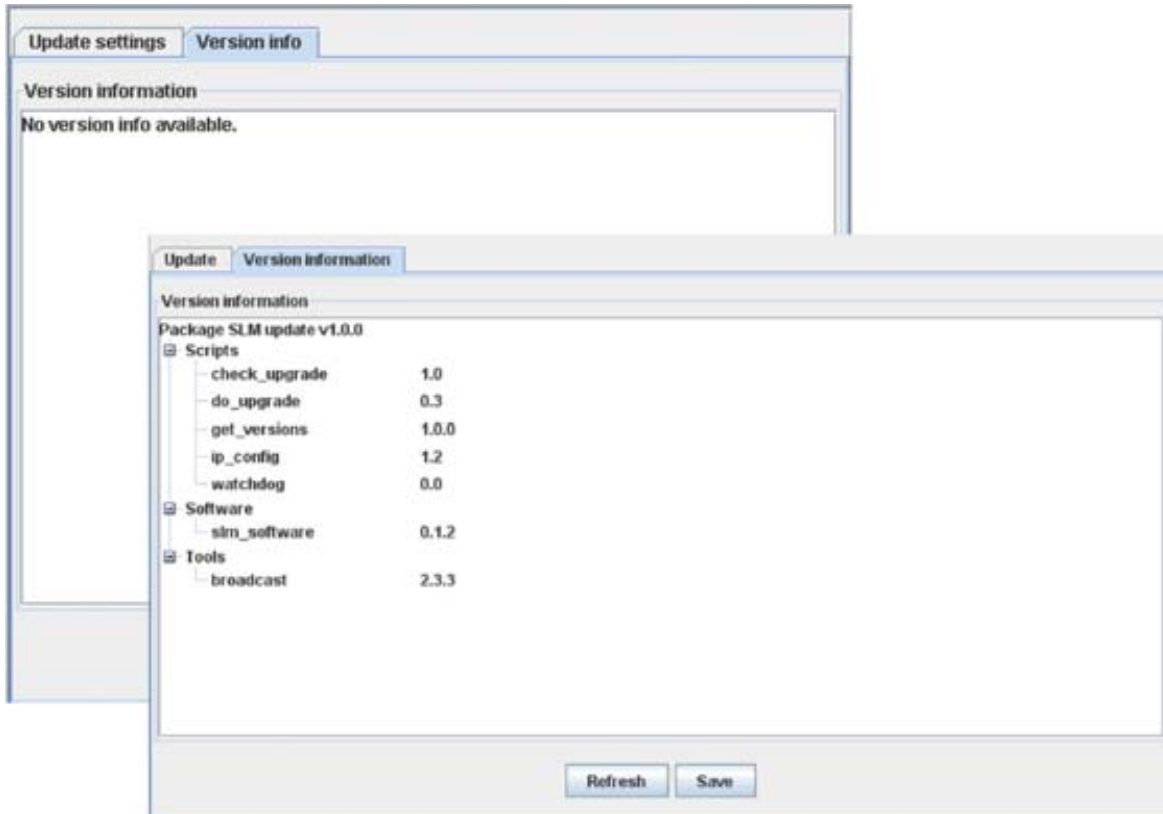Version info will be retrieved from the projector and displayed in an overview window.

Image 11-2

## To save the version info

Click on the **Save** button. (image 11-3)

A browse window opens and a proposed name is filled out.

If you are not agree with the proposed location, browse to the desired location.
If you want to change the name, enter a new name for the version info.
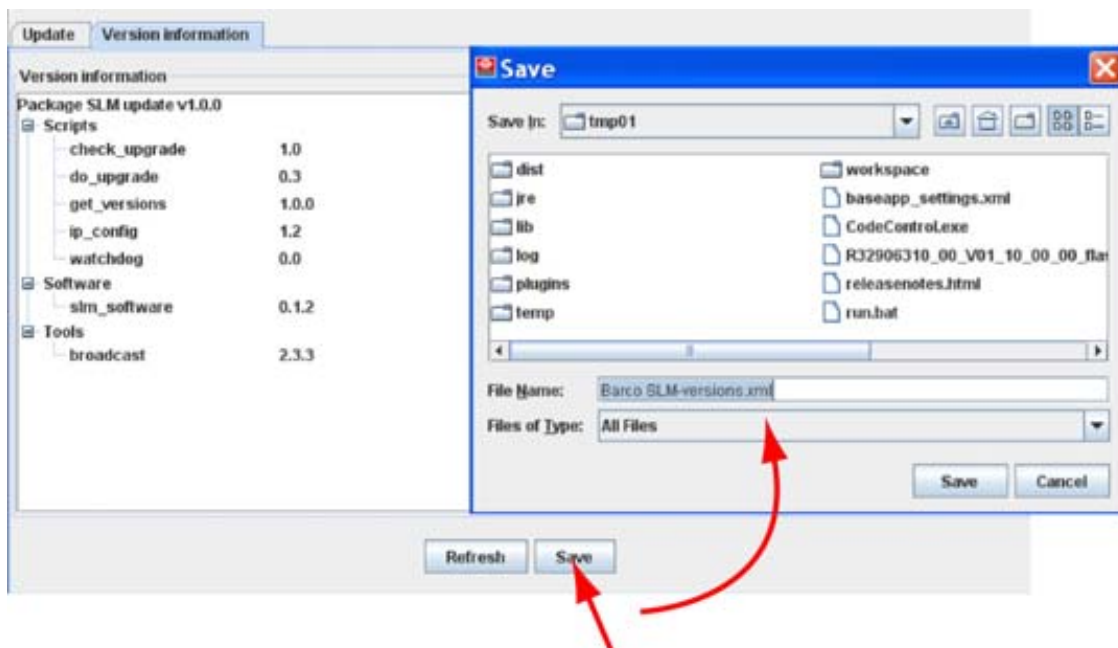
Click save to save the information as an XML file.



Image 11-3

# 12. DIAGNOSTICS

- Introduction
- Projector diagnostics

## 12.1 Introduction

### Overview

Diagnostics gives the possibility to get an overview of the working of the projector.

Run time, lamp status, I²C diagnostics and Formatter status diagnostics.

### Start up

To start up the Diagnostics, click on the diagnostics icon ( ) on the navigation button bar or click on **Modules** and select *Diagnostics*.
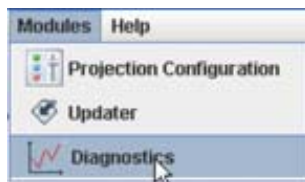


Image 12-1
Start Diagnostics module

### Diagnostic modes

Two diagnostic modes are available:
- Actual: current situation is represented in the interface.
- History mode is not available for SLM projectors

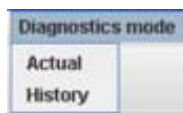To start up the desired mode, click on **Diagnostics mode** and select the desired mode, *Actual* or *History*.



Image 12-2
Diagnostics mode selection

# 12.2 Projector diagnostics

## Overview



Image 12-3
Projector diagnostics

### Run time

Time the projector is used since its first start up.

### Lamp status

A progress bar indication the time the lamp is used in comparison to the maximum life time of the lamp. A percentage is also given.

Next to, the number of strikes are given since the first start up of the lamp.

### I²C diagnostics

This pane gives an overview of the I²C statuses of the different components.

### Formatter status

Gives an overview of the status of the 3 formatters.

# Revision Sheet

To:

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